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Natural
Resources

NORTHWESTERN ONTARIO FOREST
TECHNOLOGY DEVELOPMENT UNIT

PRIME LAND INVENTORY,

COMPONENT 2

NOEGST TEST STUDY

1987

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BY

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PRIME LAND INVENTORY, COMPONENT 2
NOEGTS TEST STUDY
NORTHWESTERN ONTARIO TECHNOLOGY DEVELOPMENT UNIT

EXECUTIVE SUMMARY

INTRODUCTION

The Ministry of Natural Resources has embarked on a program of reviewing the land resources within the Forest Regions of Northern Ontario as part of a Prime Land Strategy Program. Robinson, Merritt & deVries Limited, Resource Management Consultants, were awarded a contract to evaluate the suitability of the existing land resource information data base and particularly the Northern Ontario Engineering Geological Terrain Study (NOEGTS) mapping to be utilized in the prediction of Prime Land Class and Subclass for the production of a region-wide Prime Land Inventory.

This was to be accomplished through a statistically defensible field sampling program which would test the "predictive" capability of the Prime Land Class and Subclass derived from a field sampling program.

Six NOEGTS 1:100,000 scale map sheets were selected by the Ministry from the Northwestern and North Central Regions. The methodology for reliability testing was to follow the guidelines detailed in "Guidelines for Evaluating the Adequacy of Soil Resources Inventories" by Forbes et al (1985) and "A Procedure for Determining Ground Truth Reliability for Land Resource Inventories" by Moon and Hall (1986).

The study was also to evaluate whether other resource base data such as the Ontario Land Inventory Land Classification and the Agriculture Canada soils maps could provide any additional input into the predictive process.

The NOEGTS mapping comprises a photo-interpretative evaluation of the near-surface geological formations. It was primarily designed for engineering interpretation in the identification of sources of aggregate, and difficult and problem terrains. Although the information provided by the maps is not sensitive to the criteria used in the Prime Land Key, it does provide data which, when combined with an interpretation can be utilized in predicting Prime Land Class and Subclass.

To assist in the testing the Ministry had identified five main landform types, namely Morainal, Glaciofluvial, Glaciolacustrine, Organic and Bedrock. These were subdivided into nine strata groupings derived from the NOEGTS legend that represented consistent combinations of soil textural and topographic conditions.

STUDY PROGRAM

The statistical tests used in the study were designed to test the nine strata selected from the NOEGTS legend and how well they could reliably interpret the Prime Land Class and Subclass and provide an overall estimate of the accuracy of the six selected map sheets.

To determine a starting point for the testing of accuracy, an acceptable error rate had to be established in order to measure the "observed" rate derived from a random field sampling of sites. Three levels of accuracy were tested including the 80 percent, the 70 percent and the 60 percent levels. These were used to determine whether the error rates were acceptable at the 0.05 level of significance.

(iii)

It was calculated that a total of 450 to 480 field points would be required to sample the nine strata within the six map sheets. It was determined that each strata tested should have at least five randomly selected sample points. Based on this, 90 to 100 polygons could be randomly selected within the six map sheets.

The polygon selection utilized a computerized random selection process. From a total of 2,579 polygons, 99 (representing the nine strata) were selected. Some adjustments had to be made to ensure that the polygons were accessible, that there was an even distribution of strata and polygons between maps.

The field work was undertaken in August 1987. Sample sites were randomly selected within the selected polygons and strata. The soil profile at each site was examined and the pertinent data recorded. A total of 532 sample sites were recorded.

The NOEGTS maps were digitized into an ARC/INFO data base. An algorithm for the conversion of the NOEGTS attribute data into a "predictive" Prime Land Class and Subclass was accomplished, as well as a program for the conversion of the "observed" field data.

TEST RESULTS

Three comparative statistical tests were carried out on the attribute data for each strata within the selected polygons to measure the conversion reliability of this data with that predicted by the field data. These included:

- Predicted and observed accuracy levels
- Predicted error rates
- Detection of differences between the true error rate of each strata.

The results of the testing indicate that (at the 80 percent level of significance) four of the nine strata tested met the accuracy level criteria in which the error rate did not exceed the acceptable level. The other strata fell below this level. One did not meet the criteria even at the 60 percent level. The strata that reliably predicted Prime Land Class included ME, MH (end and hummocky moraine), GO,GD; LB,LD (outwash plain, valley train, ice contact delta, esker, kame and delta moraine; raised beach form, glaciolacustrine delta), GE,GK (esker, esker complex, crevasse filling, kame, kame field, kame terrace, kame moraine), or OT (organic terrain). The other strata, MG (ground moraine), LP (glaciolacustrine plain), RN, RR (bedrock knob, bedrock ridge), X/R (bedrock below a drift veneer), and RL,RP (bedrock plateau, bedrock plain) could not predict the Prime Land Class accurately at the 80 percent level of accuracy.

The assessment of predicted error rates reflected a similar pattern. The strata MG; LP; RN, RR and X/R were unable to reliably predict the Prime Land Class at the 80 percent level, but could at the 70 percent level. Strata RL,RP could not reliably predict the Prime Land Class even at the 60 percent level of accuracy.

Utilizing the distribution of differences in rates of error, it was possible to group the strata into accuracy classes. Applying the CHI^2 2 x 2 Contingency Table the true error rates of the accuracy classes were compared. The true error rate for each of the classes is significantly different from those of the other classes. The error rates observed in their ability to predict Prime Land Class is attributed to those particular classes and not systematic over the six NOEGTS map sheets tested. These classes were applied in a determination of map accuracy.

Utilizing the area data generated from the digitized maps, the strata groupings within each of the accuracy classes were tabulated. Based on the distribution of the accuracy classes, the percent of the map accurately able to predict Prime Land Class was determined. The results indicated that the reliability ranged from a low of 8 percent of a map sheet to a high of 40 percent. The average for the six map sheets was 24 percent.

Based on the results of the statistical analysis, it must be concluded that the NOEGTS maps have a relatively poor capability to reliably predict Prime Land Class. While the results of the testing cannot be applied directly to the remaining 44 NOEGTS maps in the Northwestern and North Central Regions, it is presumed that a similar pattern would follow.

ASSESSMENT OF OLI DATA

The Ontario Land Inventory (OLI) Land Classification was undertaken in the 1960s. It was part of a program with essentially the same coverage as the NOEGTS mapping to classify and evaluate the land resources in Northern Ontario. Maps at a scale of 1:250,000 identified different landscapes and land units or land types. Although the information derived directly from the map is limiting, each map sheet is accompanied by a Land Unit Description Book. This book provides a breakdown of the soil components and their percent distribution within each unit.

In a preliminary comparative program the results proved interesting in that the OLI data could predict Prime Land Class and Subclass and that it appeared to do it better than the NOEGTS data. Based on the preliminary findings the study was extended to cover the six NOEGTS map sheets. Two tests were undertaken: one a com-

parative assessment of the NOEGTS, OLI and field data of the polygons tested to predict Prime Land Class and Subclass; a second test compared the distribution of the Prime Land Class and Subclass derived from both the NOEGTS and OLI map sheets.

It was found that the OLI data from the Land Unit Description Book could be utilized to predict Prime Land Class and Subclass. It was found that the OLI data was more "sensitive" to conversion and in its predictive capability. It was noted that where differences occurred between the NOEGTS, OLI and field data, the OLI attribute data more closely supported the field data.

Although no statistical comparative analysis was possible, the results indicated that the OLI attribute data agreed more often with the field data than did the NOEGTS attribute data. In map area assessment the NOEGTS map having the highest percentage of its area reliably classified matched closely with the comparable data from the OLI mapping.

CONCLUSIONS

Since less than 25 percent of the NOEGTS data is considered reliable in predicting Prime Lands, it is not suitable, at least in its present state, for the identification of Prime Lands. Unless the NOEGTS maps are upgraded and enhanced to improve their reliability, it would be better to start afresh with a new approach.

Based on the comparative analysis, the OLI attribute data appears to be more consistent than the NOEGTS attribute data. The OLI is capable of providing an appropriate expression of Prime Land distribution at the Regional, District and broad Management Unit

level. At the District and Management Unit level it can provide a valuable overview and the location of areas where more detailed mapping and studies would assist in evaluating and directing future afforestation and reforestation programs.

Although the OLI mapping appears to be less specific than the NOEGTS mapping in terms of scale and polygon delineation, the fact remains that the OLI attribute data contains on the average six measureable attributes. This approximates the level of intensity provided by the NOEGTS mapping. Based on preliminary estimates the OLI Land Classification mapping and attribute data could be incorporated into a computerized electronic data base at less cost than the NOEGTS data. There are approximately 16 OLI maps covering the same area as the 50 NOEGTS maps in the Northwestern and North Central Regions.

PRIME LAND INVENTORY, COMPONENT 2
NOEGTS TEST STUDY
NORTHWESTERN ONTARIO TECHNOLOGY DEVELOPMENT UNIT

1. INTRODUCTION

The Ministry of Natural Resources has embarked on a program of reviewing the land resources within the forest regions of Northern Ontario. This program commenced with the preparation of criteria to categorize prime, intermediate and non-prime lands. The initial steps are designed to scrutinize the available land resource base information and to identify prime land areas most suitable for forest development.

This program was initiated in the Northern Region in 1985 utilizing soils maps at a scale of 1:50,000 prepared by Agriculture Canada under the ARDA Program. The North Central and Northwestern Regions do not have universal coverage of this type, although some sections around Thunder Bay, Dryden and Kenora are covered. The only universal landform and soils coverage for these two regions is the Northern Ontario Engineering Geological Terrain Study (NOEGTS). These were compiled in the period 1977 to 1980 at a scale of 1:100,000. Also available are the more generalized Canada Land Inventory Land Classification maps and the Timber Capability maps at a scale of 1:250,000.

In July 1987 Robinson, Merritt & deVries Limited was awarded a contract to evaluate the suitability of the existing land resource information base and particularly the NOEGTS mapping

for the ultimate production of a region wide Prime Land Inventory. Six NOEGTS maps were selected by the Ministry of Natural Resources in the North Central and Northwestern Regions as a basis for the test. (Figure 1.1.) They were selected to represent various strata (i.e. surveyor/company, map complexity/terrain complexity and surficial materials) that occur in the two regions.

The company was supported by Northway Map Technologies Limited who provided the services for the digitizing of the maps into the ARC/INFO system and in the creation of the electronic data files and computer generated Prime Land Maps.

Field work was undertaken in August 1987 utilizing two field crews operating in the six map areas of Pakwash Lake, Wabigoon Lake and Marmion Lake in the Northwestern Region and in Seine River, Heaven Lake and Roslyn Lake in the North Central Region.

The study program was under the direction of Mr. L. deVries P.Ag. and supported by Mr. W. A. Merritt, soil resource specialist. Mr. J. M. Robinson R.P.F. assisted in the forestry perspective and in the recommendations. Mr. T. Sani, Northway Map Technologies Limited was responsible for the digitizing of the maps, the development of the data systems and files, and the production of the computerized Prime Land maps.

Robinson, Merritt & deVries Limited wish to acknowledge the assistance and support provided by Mr. W. D. Towill, Regional Forest Ecologist, North Central Region, Mr. Peter Uhlig, Forest Ecologist, Timber Sales Branch, Toronto, and Mr. Keith Jones, Forest Ecologist, Agriculture Canada, for their technical monitoring, and the staff of the Ministry of Natural Resources in the District Offices who assisted with maps, access information and photos.

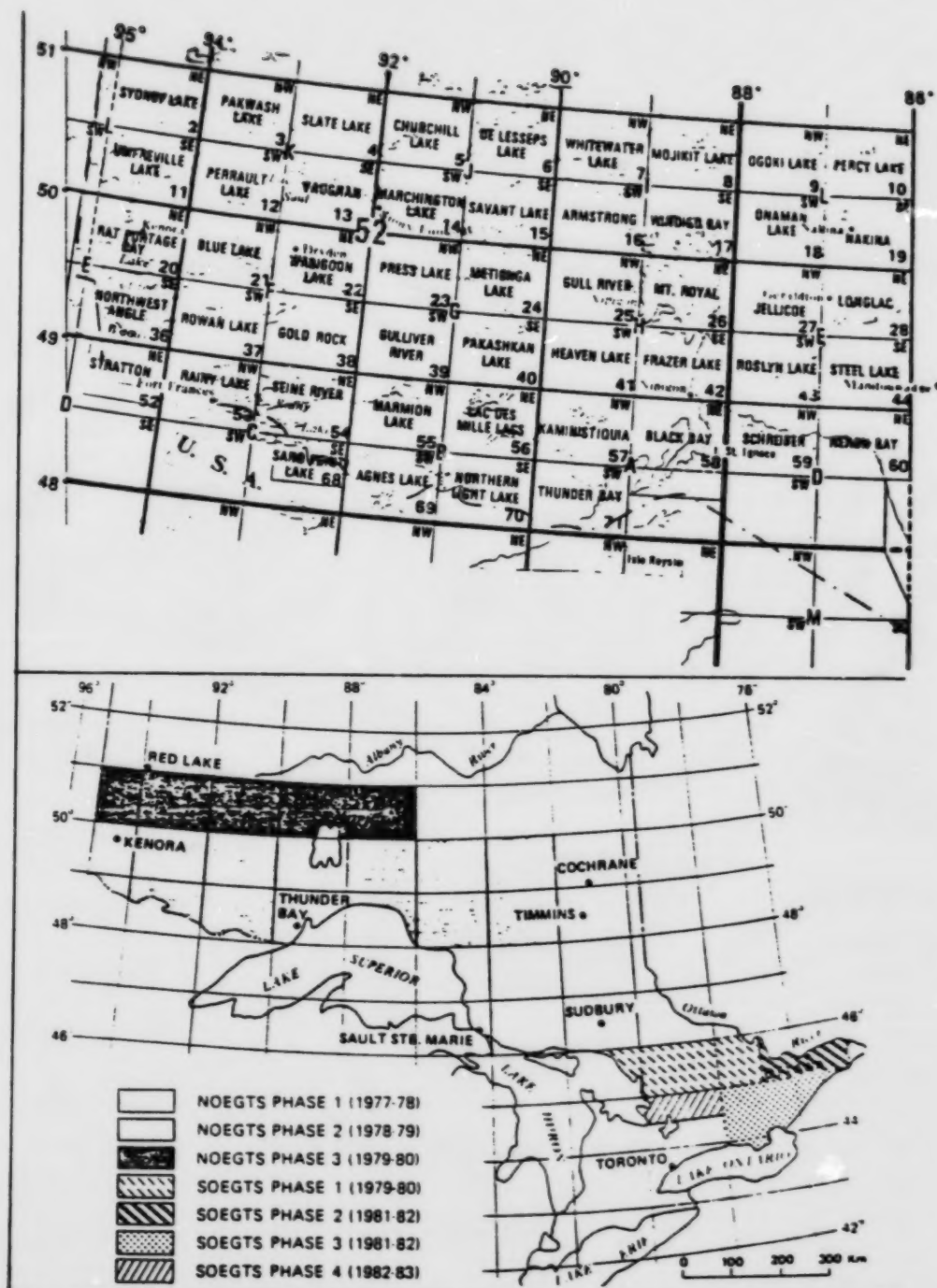


Figure 1 - Locations of areas mapped under the Northern and Southern Ontario Engineering Geology Terrain Study programs.

Reference: Northern Ontario Engineering Terrain Study 1, MNR 1981

2. PURPOSE AND SCOPE

The main purpose of the study was to test the suitability of the NOEGTS map data for the production of a region-wide Prime Land Inventory. This was to be accomplished through a statistically defensible field sampling program which would test the "predictive" capability of the NOEGTS data at the Prime Land Class and Subclass level with the Prime Land Class information derived from the field sampling program. Nine landform strata grouping from the NOEGTS maps were selected by the Ministry of Natural Resources.

The methodology for the testing is detailed in "Guidelines for Evaluating the Adequacy of Soil Resource Inventories" by Forbes et al (1985), and "A Procedure for Determining Ground Truth Reliability for Land Resource Inventories" by Moon and Hall (1986).

The study required the development of an "interpretative" or conversion algorithm which could allocate to the existing map symbol on the NOEGTS map a Prime Land Class and Subclass designation. Further, the study required the development of an algorithm to convert the field collected data from each ground observation point into a Prime Land Class and Subclass using the established Prime Land Key developed by the Ministry of Natural Resources.

The analysis of reliability was to be accomplished within each strata grouping of landforms defined on the NOEGTS map to determine which of the strata accurately and reliably predicted the Prime Land Class.

The study was also to evaluate whether other source data, such as the Ontario Land Inventory Land Classifications maps and data and the Timber Capability maps could provide any additional meaningful inputs into the predictive process.

Products of the study were the development of an ARC/INFO data base file for each of the NOEGTS maps, the polygon, number and attribute data, the presentation of the predicted Prime Land Class and Subclass and the ground observation data collected in the field. A report followed which had a full discussion of the methods used, the results of the tests and the conclusions made. Recommendations were requested in terms of improvements which might increase the predictive reliability of the NOEGTS mapping.

3. METHODS

3.1 NOEGTS Polygon Attribute Data

The Northern Ontario Engineering Geological Terrain Study (NOEGTS) comprises a photo interpretative evaluation of the near-surface geological formations. It was designed primarily for engineering interpretation and the identification of sources of aggregate, and difficult and problem terrains. Maps at a scale of 1:100,000 were produced in colour by the Ontario Geological Survey, Ministry of Natural Resources. These maps show the distribution and composition of different landforms and landform complexes combined with information on soil materials, relief and drainage. The information was compiled utilizing aerial photography of differing scales ranging from 1:37,000 to 1:70,000. A Legend for the mapping and the form of a sample symbol is detailed in Figure 3.1.

Although the information provided by the map is not truly sensitive to the criteria used in the Prime Land Key, it does provide data which when combined with some interpretation can be utilized in predicting Prime Land Class and Subclass. Approximately fifty-five 1:100,000 map sheets cover the southern parts of the North Central and North Western Forest Regions.

LETTER SYMBOLS OF THE LEGEND

LANDFORM

MORAINAL

- ME End moraine
MG Ground moraine
MH Hummocky moraine

GLACIOFLUVIAL

- GD Ice contact delta, esker delta, kame delta, delta moraine
GE Esker, esker complex, crevasse filling
GK Kame, kame field, kame terrace, kame moraine
GO Outwash plain, valley train

GLACIOLACUSTRINE

- LB Raised (abandoned) beach form
LD Glaciolacustrine delta
LP Glaciolacustrine plain

GLACIOMARINE

- WD Glaciomarine delta
WP Glaciomarine plain

ALLUVIAL

- AP Alluvial plain

COLLUVIAL

- CS Slope failure
CT Talus pile
CW Slopewash and debris creep sheet; minor talus

EOLIAN

- ED Sand dunes

ORGANIC

- OT Organic terrain

BEDROCK

- RL Bedrock plateau
RN Bedrock knob
RP Bedrock plain
RR Bedrock ridge
/R Bedrock below a drift veneer

MATERIAL

- b boulders, bouldery
c clay, clayey
g gravel, gravelly
p peat, muck
r rubble
s sand, sandy
m silt, silty
t till

TOPOGRAPHY

LOCAL RELIEF

- H Mainly high local relief
M Mainly moderate local relief
L Mainly low local relief

VARIETY

- c channelled
d dissected, gullied
j jagged, rugged, cliffed
j* cliffed volcanic rock signature
k kettled, pitted
n knobby, hummocky
p plain
r ridged
s sloping
t terraced
u undulating to rolling
w washed, reworked

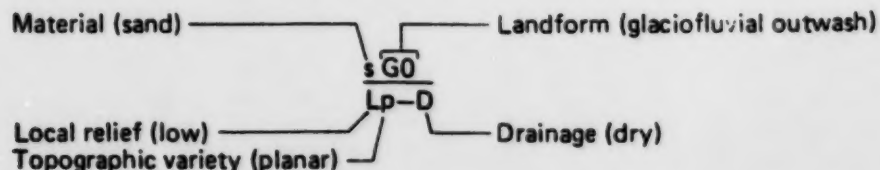
DRAINAGE

SURFACE CONDITION

- W Wet
D Dry
M Mixed wet and dry
h Suspected high water table

MATERIAL	LANDFORM
TOPOGRAPHY	DRAINAGE

Each component within the *letter code* is described by upper and lower case *letter symbols*. The following example illustrates this:



To utilize these maps and the attribute data through a "digitization and computer oriented" program which could convert the attribute data into Prime Land Class and Subclass, considerable work was required to "clean" the maps and data. Unfortunately, the maps are fraught with numerous errors and inconsistencies. These errors and inconsistencies included: missing polygon symbols, incomplete and unclear boundaries, mismatches with adjacent map sheets in terms of boundaries and symbols, and polygons having a number of differing symbols with no separation between them.

In preparing the maps for digitization and in the development of the attribute files, these errors and inconsistencies had to be dealt with and corrected. The following guidelines were used to correct these errors and inconsistencies.

1. Where a map sheet did not tie or there was a missing symbol or missing boundary, the boundary would be adjusted or a missing boundary completed as best possible. Where the symbol did not match the symbol of a minor area, it was corrected to match the major area.
2. Where a map polygon had two or more differing symbols the problem was solved by either
 - using lakes and river boundaries and by short dividing lines the complex polygon could be broken into smaller homogenous polygons, or
 - where this could not be done, the symbols were analyzed and the less important discarded.

The specification for the digitizing of the NOEGTS map base data excluded islands and lakes of less than 25 hectares in size. Further adjustments had to be made to the NOEGTS mapping to clarify the polygon boundaries. Where small lakes were excluded, new boundaries had to be drawn to ensure polygon closure.

The "cleansing" of the maps was accomplished during the numbering of the polygons. Each polygon was assigned a number beginning in the upper left hand corner of the map. A complete listing of the polygons and their attribute data was prepared. Based on the attribute data, the polygon was assigned a predicted Prime Land Class and Subclass for the dominant and subdominant elements of the symbol. The Prime Land Class and Subclass were based on a "predictive" assessment of the NOEGTS data. This is detailed in Section 3.3. The compiled data on the polygons, attribute data and Prime Land Class were encoded into an electronic data file.

The "cleansed" NOEGTS maps were sent to Northway Map Technologies Limited for the digitizing of the map base information and the polygon boundaries and numbers.

3.2 NOEGTS Map Data File

The base map information was digitized directly from the NOEGTS maps. Stable chronaflex copies of the base were provided by the Ministry of Natural Resources. The base information was "table" digitized by using U.T.M. co-ordinates.

Map preparation included identifying all lakes which were less than 25 hectares in area. This was done by creating 25 hectare templates at the scale of 1:100,000. The template most closely matching the shape of the lake in question was overlayed to determine if the lake was greater than 25 hectares.

Soil polygon boundaries were digitized from the NOEGTS maps which had been "cleansed". Some additional interpretation was required to accommodate single line rivers that were not

digitized. Some polygon boundaries fell along these rivers. In some cases labels were deleted since the single line river which formed a boundary between two identical attribute types was not digitized. Where the soil types along either side of the non-digitized river differed, the boundary was digitized in as a polygon boundary.

3.3 Prime Land Conversion Key

The basic Prime Land Key was developed by the Ministry of Natural Resources during Component 1 of the Prime Site Management Strategy for the Northern Region and has been used for the Northwestern and North Central Regions.

The Key identifies the main parameters needed in the conversion of resource base information into Prime Land Class and Subclass data. The main parameters are soil depth, depth of organic matter, soil texture, drainage characteristics in terms of mottling and gleying or in moisture regimes.

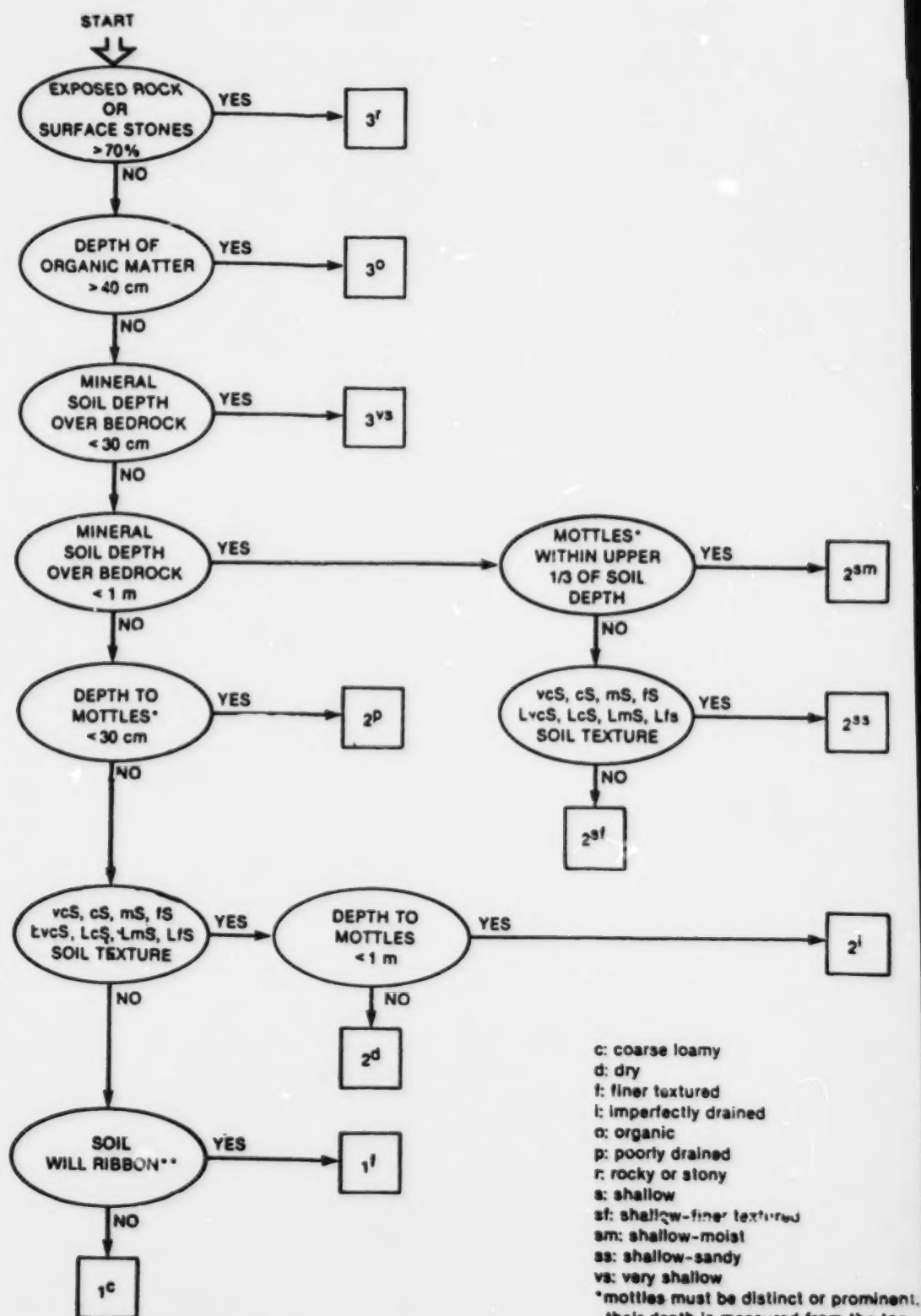
Figure 3.3 represents the flow systems for the Conversion Key Algorithm and the parameters required.

3.3.1 Interpretation and Conversion of NOEGTS Attribute Data

The interpretation and conversion of the NOEGTS attribute data into Prime Land Classes and Subclasses was first undertaken for the Northern Ontario Region Study. All the differing symbols from the NOEGTS maps were tabulated and sorted. Based on the symbol, an interpretation was made with respect to the nature of the soils material associated with the land-

FIGURE 3.3

PRIME LAND CONVERSION KEY



form, the drainage or moisture conditions, and the depth of the soil. Preliminary estimates of the conversion had to be modified, particularly in the interpretation of the "rock controlled" landforms. A greater emphasis had to be placed on the interpretation applied to the landform and the association of the different landforms that were part of the attribute symbol.

The following guidelines were utilized in the conversion of the NOEGTS data into Prime Land Class and Subclass data for the different landforms reported. These were utilized in the preparation of the Model for the NOEGTS Prime Land Conversion Algorithm, Figure 3.3.1. The program for the conversion is detailed in Appendix "A".

1. Alluvial Plain Landform -AP

For the most part the alluvial plain landform was classified as 2p unless it was identified with organic materials in which case they were classified as 3o.

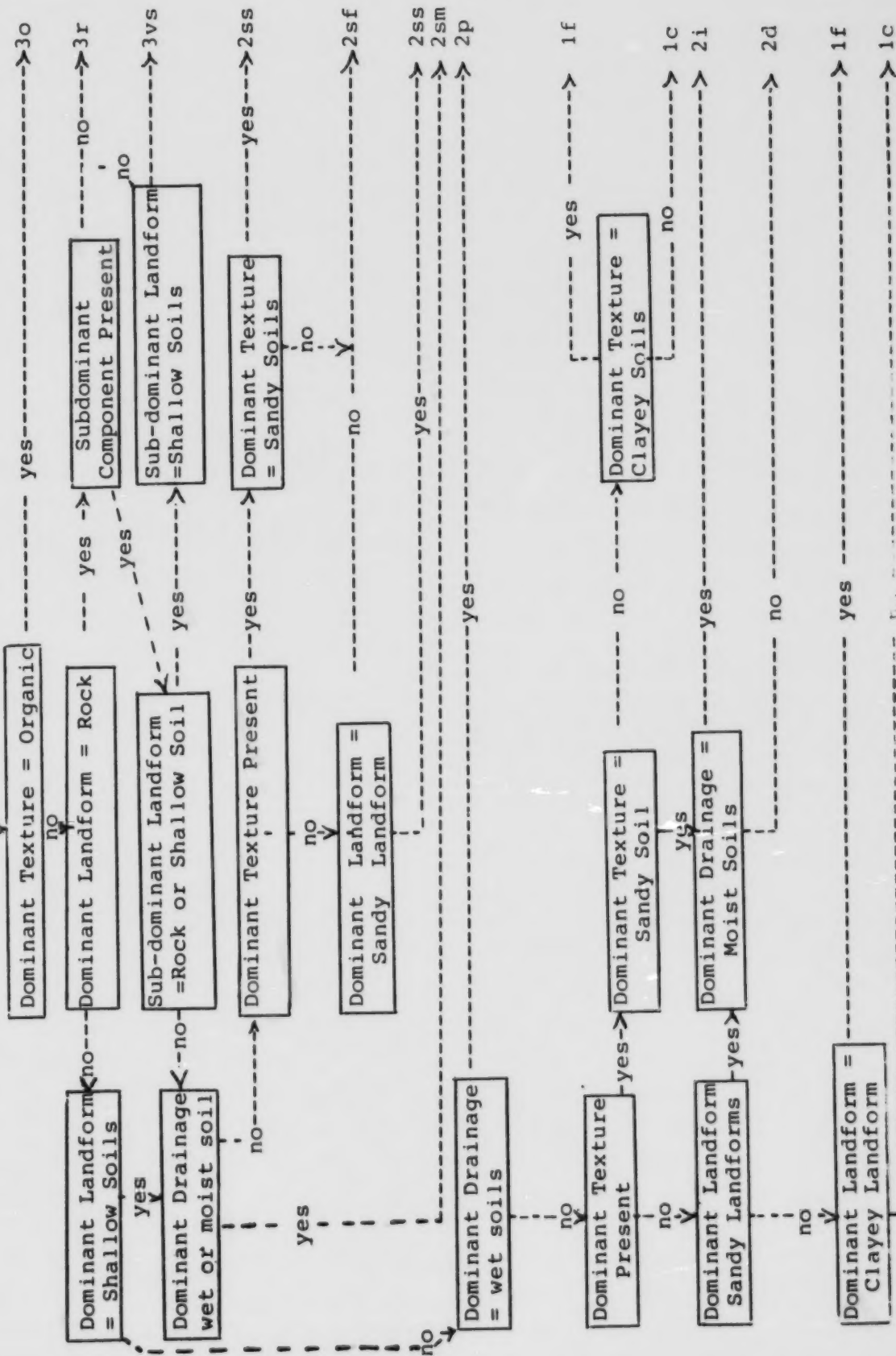
2. Rock Knob Landform - RN

This landform group required the greatest amount of interpretation in the conversion. The following guidelines were used in the interpretation and conversion.

- (a) Where RN occurred as the sole symbol it was automatically converted to 3r.
- (b) Where RN occurred as the dominant landform but was modified or associated with a shallow phased "mineral or organic" landform (i.e. msLP/R), it was considered as being classed in the 3vs or 3o category.
- (c) Where RN occurred as the dominant landform but was associated with a single sub-dominant landform of the "Mineral" type (i.e. RN(LP), RN(sLP) or RN (tcMG) it was included in the 2s productivity group and depending on the materials and the interpreted drainage was recorded with productivity symbols such as 2ss, 2sm, 2sf.

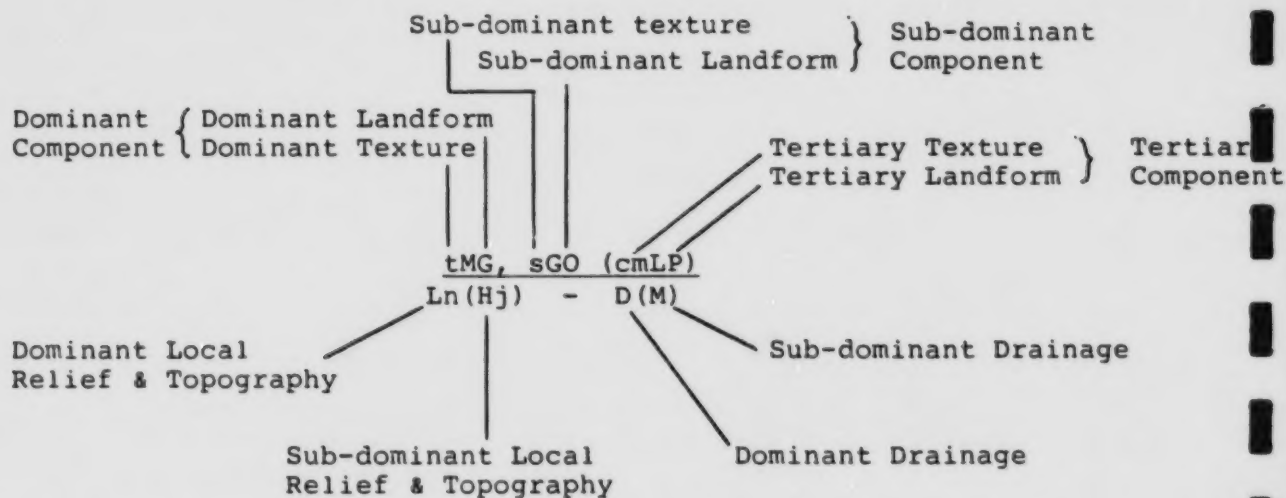
NOEGTS - PRIME LAND CONVERSION ALGORITHM

START



LEGEND TO NOEGTS - PRIME LAND CONVERSION ALGORITHM

ALGORITHM	NOEGTS
Organic Soils	P
Rock	R,RN,RL, RP, CT, CW
Shallow Soils	any landform/R, RN, RR, RL, RP, CT, CW
Sandy Soils	b, s, sg, ts, t, sb, sgt,sgb,gs, gsb, tsqb, tsb, tr, r, tb
Sandy Landforms	GO, GD, GK, GE, LB, MG, MH, ED
Clayey Soils	cm, c, mc, cs, tcg
Wet Soils	W
Moist Soils	M



- (d) Where RN occurred as the dominant landform but was modified by a series or number of different landforms either "mineral or organic" the dominant landform was accorded a 2s productivity class. In most of the cases this resulted in the dominant landform being 2ss because much of the Rock Knob areas are associated with coarse textured morainal deposits. The sub-dominant productivity class was based on the appropriate landform that followed in the sequence and on the soil materials reported and an interpretation of the drainage.

3. Organic Landform - OT

This landform group has been identified with the 3o productivity class. Where the organic landform is dominant or is in association with other landforms or overlies other landforms, the following conversions have been used.

- (a) Where the OT landform is dominant but overlies another landform as indicated by the / slash symbol, the organic layer is considered deep enough to place the unit into the 3o productivity class.
- (b) Where the OT landform is dominant but is associated with other landforms, the dominant class would be 3o and the sub-dominant landform would be identified by the appropriate class based on the nature of the landform, the soil material and an interpretation of the drainage conditions.

note: "h" has been used to further characterize the drainage condition by indicating a high water table. However, because the high water table cannot be identified with a specific landform, it has been excluded as a diagnostic element.

4. Morainal Landform - MG

In the determination of the appropriate productivity class the following conventions and guidelines have been used.

- (a) Where the dominant morainal landform MG overlies the RN or R landform (i.e. tMG/R or tcMG/R) it has been assumed that the materials are shallow and therefore the unit would be identified with the 2s group of indices. The index would be modified by the appropriate subclass symbol based on the nature of the soil materials and an interpretation of the drainage conditions.
- (b) Where the dominant morainal landform is associated with other landforms, the MG landform is identified by the dominant productivity class while the next landform is used to identify the sub-dominant class. The appropriate class and subclass are selected based on the nature of the landform, the soil materials and an interpretation of the drainage conditions.

Note: In the interpretation of the "t" or till materials that are associated with the MG landform it has been assumed that "tc" refers to clayey tills or mainly clay and clay loam materials; "tm" are loamy tills mainly loams and sandy loams and "t" are identified as sandy tills mainly sands and loamy sand materials.

Note: The use of the "h" indicating a high water table has been ignored as a diagnostic element.

5. Glaciolacustrine Landform - LP

Similar conventions have been utilized in the conversion of the lacustrine landforms into forest productivity classes as used for the morainal materials. With the lacustrine landforms there has been a greater identification of the soil materials. The engineering soils classification has been translated into the following soil types.

s	-	sandy
sm	-	silty sand or loamy sand
sc	-	clayey sand or loamy sand to sandy loam
smc	-	silty clayey sand or sandy loam to loam
ms	-	sandy silt or loam
mc	-	clayey-silt-loam
msc	-	sandy clayey silt or loam to clay loam
cs	-	sandy clay or clay loam to clay
cm	-	silty clay or silty clay loam to clay
cms	-	silty sand clay or clay loam to clay

Note: The "h" designation associated with the drainage definition has not been used as a diagnostic element.

6. Glaciofluvial Landforms - GE, GK, GO

This group of landforms include those identified with eskers - GE, those with kame moraines - GK, and those with outwashes - GO. Similar conventions have been utilized in the conversion of the landform data into forest productivity classes and subclasses. The soil materials associated with these landforms are mainly coarse in texture, sands and sands and gravels. The dominant GE, GK and GO landforms have been identified with the 2d productivity group, and the shallow member with 2ss.

3.3.2 Conversion of Field Site Data

The program for the conversion of soil/site data collected in the field followed the model developed in the Prime Land Key figure 3.3 in Section 3.3 of the report. The data gathered in the field was collected in a manner that was compatible with the model and to the conversion program. The soil/site data conversion program is detailed in Appendix "B".

3.4 Landform Stratification

The Ministry of Natural Resources had identified five main landform types that were felt to be important and significant in their occurrence to the ultimate determination of Prime Land Class. These include:

1. Morainal landforms
2. Glaciofluvial landforms
3. Glaciolacustrine landforms
4. Organic landforms
5. Bedrock landforms.

These main landform types were subdivided into strata as reflected by the landform designations detailed on the NOEGTS maps. Each of the strata carries with it a fairly

consistent combination of topographic and soil textural conditions. The following selected nine (9) strata groupings were set out for the purpose of comparing the predictive capabilities of the NOEGTS maps. This reduced number has assisted in keeping the field sampling numbers to a reasonable level. The nine strata include the following:

1. ME and MH - End and hummocky morainal types; variable in depth, texture, moisture conditions and stone content.
2. MG - Ground moraine types; more subdued topography, similar variation (as in 1) in materials.
3. GE and GK - Hummocky esker and kame types; stony, coarse textured (poorly sorted) materials.
4. GD, GO, LB and LD - Level, inclined or undulating outwash, beach and delta types; well sorted sandy/coarse loamy materials, variable stone content. Lacustrine and glaciofluvial types are grouped here primarily based on similarity of texture.
5. LP - Level or undulating lacustrine plains; finer textured, predominantly stone free materials.
6. OT - Level organic terrain developed from peaty materials in wet landscape positions.
7. RL and RP - Level to undulating bedrock plateaus and plains; variable depth, texture and drainage in overlying materials (predominantly shallow).
8. RN and RR - Steeper rock ridge and knobby terrain; similar variation (as in 7) in overlying materials (shallow).
9. /R - Bedrock underlying a variable depth (veneer) of materials.

The remaining landform types are of very minor occurrence. Eolian deposits (ED) in the NC and NW regions coincide with, and are virtually indistinguishable from, glacial outwash deposits and are therefore grouped with them for the purposes of this study. The small area of alluvial materials present in the region make these difficult to assess. They too will be grouped with outwash deposits due to their similarity in texture. Colluvial deposits (CS, CT and CW) were not to be considered in this study due to their extremely low occurrence. They were, however, assigned a Prime Land Class and Subclass by the conversion algorithm.

3.5 Statistical Method

The statistical tests used in this study are to assist in determining whether or not the scheme used to classify the surficial deposits on the NOEGTS maps is suitable for predicting the location of Prime Lands for forestry use. The statistics are designed to test if the selected groupings of landforms or strata defined by the NOEGTS legend can be reliably interpreted as to their Prime Land Class and Subclass and to estimate the overall accuracy on the six selected NOEGTS map sheets.

Use was made of the statistical methods outlined in "A Procedure for Determining Ground Truth Reliability for Land Resource Inventories" Moon and Hall, 1986, and "Guidelines for Evaluating the Adequacy of Soil Resource Inventories" Forbes et al, 1985. These documents suggested several approaches.

In order to establish a starting point for testing the accuracy by which the landform strata could predict the Prime Land Class an acceptable error rate or a predicted rate of error would be required that could be measured against an "observed" rate of error derived from random field sampling. A predicted rate of error of 70 percent was initially selected as acceptable; however, further testing suggested that a range of error rates ranging from 60 to 80 percent would be more appropriate.

The strata derived from the NOEGTS mapping were observed in the field and a score of the agreements and disagreements between the predicted Prime Land Class as depicted by the map and the observed Prime Land Class as noted from the field sample were recorded. Observed error rates for each strata could then be determined and compared with the predicted error rates. By determining the standard difference of the observed error rate and comparing this range with the predicted error rate a determination could be made as to whether the difference between the observed and predicted error rate is statistically significant.

If the difference is significant, then the conclusion drawn is that the predicted error rate or accuracy is not the true error rate. If the predicted error rate is not the true error rate, the true error rate is either lower (acceptable) or higher (unacceptable). By conducting the CHI^2 dispersion test a determination can be made for each predicted accuracy level (60, 70 and 80 percent) of whether the error rate is acceptable at the 0.05 significance level.

The error rates observed may be attributable to many causes. Error can be attributed to individual strata and thus be an indication of whether some strata are significantly better than others in predicting Prime Land Class. To determine if the differences in true error rate between strata is significantly different, the CHI^2 contingency table has been used. This test determines whether the true error rate of a strata is dependent on that strata or is the result of some other cause. By comparing all of the strata a determination can be made as to which strata have an observed error rate significantly different than the others at the 0.05 level.

To carry out these tests it was estimated that for each strata to be tested a minimum of 50 sample points were needed. In order to obtain a fair assessment of the overall map accuracy, a minimum of one point per ten average size map units per map or 80 observations per map sheet were needed.

In total, 9 strata on 6 map sheets had been selected for testing. Based on the sample point estimation, a total of 450-480 points were required to provide a reasonable sample. The distribution of these sample points was constrained by the following factors:

1. Accessibility to the strata on the map
2. Distribution of strata between maps
3. Distribution of polygons between maps.

To test the ability of each strata to predict the Prime Land Class it is necessary to randomly select from the polygons that make up each of the strata a sufficient number that will ensure that a random sampling of each strata is accomplished. Five or more randomly selected sample points would be allocated to each of the selected polygons rather than one sample point per polygon. This was done in recognition of the heterogeneity of the polygon attribute data. Following this approach means that fewer polygons of each strata would be selected. Further, it means that with this system of randomly distributed sample points, 90 to 100 polygons could be randomly selected or roughly 16 polygons per map sheet. The sampling points represent the "observable" component of the comparison with the "predicted" component as determined from the attribute data.

3.6 Random Selection of Polygons

The random selection of the polygons utilized the listings and the numbers assigned to each map polygon as detailed in Section 3.1. All polygons were available for selection in the computerized random selection process. However, due to the high rejection rate caused by the accessibility constraint, the requirement to have sufficient strata represented and that each map sheet be sufficiently sampled made it necessary to adopt alternative methods. Selection of polygons was complicated by the fact that

- Pakwash Lake map sheet had almost twice as many polygons as any of the other map sheets.
- Roslyn Lake map sheet had only six strata present and accessible.

- Seine River had only seven strata present and accessible.
- Pakwash Lake, Marmion Lake, and Heaven Lake each had one missing strata.
- Only Wabigoon Lake had all strata present and accessible.
- Strata RL, RP were present and accessible on only three map sheets.
- Strata LP, LB, ME, MH were present and accessible on only four map sheets.
- Strata MG was present and accessible on five map sheets.

The computerized random selection process produced an acceptable selection of only 54 polygons out of the 90 to 96 that were required. The rate of rejection of polygons was such that the process was reduced to waiting for a particular map sheet, strata and polygon to come up "randomly" to complete the sampling distribution. This process was altered and resulted in the sorting of the polygons by map sheets and by accessibility of the polygons into strata. A random selection was then made from the accessible strata required for each map sheet in order to fulfill the total requirements. Forty-four polygons were selected in this manner.

A further adjustment and selection had to be undertaken in the field when it was found that eight of the polygons selected were found to be inaccessible due to changes in access or where the polygon boundaries could not be adequately identified in the field. Three additional polygons were added to the observation base. The distribution of the polygons and strata within the map sheets is shown in Table 3.6.1.

Table 3.6.1. Identification and Distribution by Map Sheet of Randomly Selected Polygons and Sampling Points Within the Landform strata to be Tested

STRATA	MAP SHEETS						Totals
	5107 Pakwash Lk	5059 Wabigoon Lk	5073 Marmion Lk	5051 Heaven Lk	5079 Roslyn Lk	5070 Seine R	
<u>ME, MH</u>							
polygons # ^s	670,276	162,287	81*	230	283	90,199	10
	855						
no sites	17	18	10	10			55
<u>MG</u>							
polygons # ^s	795,800	313,110		278,346	324	102,128	11
	801*			246			
no sites	10	12	--	15	5	12	54
<u>GE, GK</u>							
polygons # ^s	261,154	139	188,184	97,225	190,110	155,93	13
					111,74		
no sites	7	8	10	10	15	10	60
<u>GD, GO, LB, LD</u>							
polygons # ^s	445,294	80,101	231,114	124,42*	311*,273	77,107	15
			86*		323*	238	
no sites	11	12	.5	10	15	17	80
<u>LP</u>							
polygons # ^s		141,98,19	219,112*	70,61		153,141*	9
no sites		22	10	10	11	9	51
<u>OT</u>							
polygons # ^s	78	37,188	293,156	105	162,177	156,178	10
no sites	3	11	10	5	11	10	50
<u>RL, RP</u>							
polygons # ^s	827,637	253	286,237				8
	224,301		290				
no sites	32	6	15				53
<u>RN, RR</u>							
polygons # ^s	874	312	107	227,292	168,214	157,85	12
					320	242,170*	
no sites	7	6	6	10	20	25	74
<u>X/R</u>							
polygons # ^s	861,358	126	220,301	96,330*	57,59,	95	11
					119		
no sites	8	6	10	11	15	5	55
TOTALS							
polygons	18	16	17	16	16	16	99
no sites	95	101	86	81	81	88	532

* Polygons selected in the field as replacements for polygons deemed inaccessible due to changes in access; OR additional polygons sampled as time allowed.

3.7 Field Survey

3.7.1 Sample Site Selection

The sampling points within each of the selected polygons were randomly selected. Several approaches were tried to establish the most reasonably effective and efficient method. Initially, utilizing the NOEGTS map and the aerial photography, all access road segments were identified within a polygon. Five segments were randomly selected from the total. When fewer than five road segments were identified, all roads were used. Each selected road segment was measured and a random proportion of that distance determined. This distance determined a starting point for a transect. A random bearing and random distance along the bearing were selected to establish the sampling point location. When less than five road segments were available, one or more segments were used twice or as many times as necessary to establish five sample points.

A second approach used the NOEGTS mapping and air photography and a single road segment to randomly select a starting point. A random bearing from the starting point was established and five or more points established at a regular distance of 60 meters along the chosen bearing.

A third approach used the Provincial Series base mapping and a reconnaissance of the polygon roads accessible by a half-ton truck. Random distances along the roads were determined using the 1:100,000 mapping to serve as starting points for transects. Transects were established at right angles to the road and a random distance between 10 and 99 meters used to locate the sample points. A minimum of five plots were established in each of the randomly selected polygons.

Although no statistical analysis was conducted on the different sample site selection processes, the following details the limitations as experienced in the field.

1. Frequently roads shown on the NOEGTS maps could not be travelled due to regrowth of vegetation, flooding or general deterioration. This necessitated making new solutions to the approach initially used.
2. To access some of the roads required excessive travel off the map sheet and photo coverage used in the study. This resulted in increased uncertainty with regard to recovering polygon boundaries in the field.
3. Frequently, random bearings required adjustments to ensure that the bearing avoided paralleling roads, leaving the polygon being tested or crossing water bodies.
4. Road access shown on the NOEGTS maps were often approximated and caused difficulties as to whether the appropriate polygon had been entered.
5. Most polygons were complex assemblages of landforms and any concentrated sampling as utilized in the second method provided a basis for testing only one of the landform types. A transect of one kilometer represented only one centimeter on the NOEGTS map.
6. The disturbance of land due to road construction, previous harvesting operations and site preparations required adjustments of the randomly selected points. These spoil areas were not readily identifiable on the photography and required the selection in the field of new points on a point by point basis.

Utilizing the following criteria to evaluate the approaches Table 3.7.1 summarizes the observations: a) Difficulty in recovering predetermined sample sites in the field, b) areal dispersal of sample sites within selected polygons, c) reliability of access, d) time spent for each sample point, e) complexity of random design for selecting sample points, and f) distance travelled to sampling point.

Table 3.7.1
COMPARISON OF APPROACHES

Sample Point Selection Method	Difficulty in Recovering Selected Sample Plot	Area Dispersal	Reliability of Access	Time per Sample Point	Complex of random Design	Distance of travel Points
I	3	3	3	3	3	3
II	2	1	2	2	2	2
III	2	2	2	1	2	2

3 = Greatest, 2 = Moderate, 1 = Least

Method I attempts to remove as much bias as possible in sample point selection by creating a complex random design. It required the greatest distance to travel and time to recover each sample point. This was due primarily to difficulty encountered in accessibility and recovery of predetermined sample points.

Methods II and III were very similar in all criteria except in areal dispersion and time spent per sample point. It was observed that Method II did not present much opportunity to sample the various components of the polygons and was biased towards one type in which the transect was randomly placed.

Although Method I provided the widest possible dispersion, the random design was by necessity frequently substituted in the field. The selection of those substitutions reflected Method III. Method III provided better dispersal of sample points through the polygon than Method II, with timeliness and efficiency. The points, although not completely predetermined previous to the field work, were none the less randomly selected. Method III was adopted for the study as being the most pragmatic and offering the most efficient and effective approach. Where access was limited and where a polygon was small, the transect method was utilized.

3.7.2 Soil Site Investigative Procedures

At each sample site the soil profile was examined using a shovel or soil auger. A record was made of the following characteristics:

- * Depth and class of surface organic matter
- * Depth of mineral soil over bedrock
- * Depth to distinct and/or prominent mottles and/or gley
- * Mineral texture by horizon
- * Depth to carbonates
- * Depth of solum

All depths were measured in centimeters. The criteria used for the soil descriptions are detailed in "The OIP Field Manual for Describing Soils", Ontario Institute of Pedology, 1985. Surface organic matter was classed into one of four categories, namely Moder, Mull, Mor and Peaty Mor (OIP Manual, Page 20).

Criteria for describing drainage classes based on mottling or gleying are detailed on pages 12 and 13 of the OIP Manual. Moisture Regime classes are detailed on pages 14 and 15. The mineral soil texture was sampled by horizon and classed according to the relative proportion of sand silt and clay. All textures recorded were hand determined. The soil textural classes are detailed on pages 4 to 8 of the OIP Manual. The presence of carbonate were tested by the reaction to a 10 percent solution of hydrochloric acid.

At each site the general site conditions were recorded. These included:

- Percent exposed bedrock
- Percent surface stoniness
- Landform class
- Site position

The estimate of percent bedrock and percent surface stoniness was made to the nearest 10 percent.

Six landform classes were used to identify the landform or origin of materials. These included Morainal, Fluvial, Lacustrine, Eolian, Coluvial and Organic. These are described on page 1 of the OIP Manual. Seven site positions were utilized to identify the position in the terrain where the sample site was located. These include Crest, Upper Slope, Middle Slope, Lower Slope, Toe, Depression and Level. These positions are defined in the OIP Manual, page 3.

3.8 Electronic Data Storage

Data files were created for the polygon attribute data and the Sample Site data that were compatible with the digitized NOEGTS mapping and area files. The data files were developed by Northway Map Technologies Limited. The polygon Attribute file was divided into nine fields that recorded the map number, material and landform, topography, drainage dominant Prime Land class and subclass and the sub-dominant Prime Land Class and Subclass.

The soil sample site data file was created using as a guide the variable class and polygon description utilized by the Northern Region of the Ministry of Natural Resources to record the details of the soils at the sample site. Thirty-three data columns were utilized to record the information on the soil profile, site location and conditions. An example of the field sheet is located in Appendix "C".

4. THE DATA BASE

This section of the report summarizes the various data base information which has been utilized in the analysis of the study. Section 4.1 summarizes the NOEGTS polygon attribute data. This has been the basic information which has been used in the polygon selection, the predicted Prime Land Class/Subclass assessment, and as the source of the area data for the other files.

Section 4.2 presents the summary information on the Prime Land data, while Section 4.3 details the summary data on the distribution of the Strata Groupings which were selected for the study.

Section 4.4 summarizes the information derived from the soil, site field investigations.

4.1 Polygon Attribute Data File

The polygon attribute data file on each of the six NOEGTS maps are detailed in Appendix "D". These files tabulate in a numerical listing the polygon number, the attribute data from the NOEGTS Map, including the Dominant and Subdominant landforms, the topography, drainage, the Prime Land Class and Subclass designation for the Dominant and Subdominant element and the area of each polygon. The data also includes an approximation of whether the polygon is accessible by road as shown on the base information of the NOEGTS Map.

Table 4.1.1 provides a summary of the number of polygons per map sheet, the total area of the polygons and the area of lakes in excess of 25 hectares, and the total area of the map sheet. The map sheets differ in the number of polygons that were delineated. Pakwash had more than twice the average and over three times the number of the lowest map density (Seine River). Three of the map sheets, Wabigoon, Heaven and Roslyn Lake, have polygon densities that are very close to one another and are not extensively different than Marmion Lake. A total of 2,579 polygons comprised the basis for the random selection of polygons. The data from the polygon attribute file has been utilized in the stratification of the polygon data by landform and by access criteria.

Table 4.1.2 summarizes the distribution of polygons by dominant landform characteristics for each of the map sheets and for the study area.

Table 4.1.3 provides a summary of the ranking in terms of the number of units of the different landform elements. Organic terrain (OT) represents the largest number, Rock Knob and Morainal landforms rank second and third, with Glacial outwash fourth and Lacustrine plain fifth. The remainder of the landforms have more limited distribution in terms of number of units maps.

4.2 Prime Land Data

The following section details the Prime Land Class and Sub-classes for each of the map sheets.

TABLE 4.1.1

SUMMARY OF POLYGON NUMBERS, TOTAL POLYGON AREA,
WATER AREA, MAP AREA IN HECTARES BY MAP SHEET

<u>Map Sheet</u>	<u>Number of Polygons</u>	<u>Area of Polygons Land Surface</u>	<u>Area of Water</u>	<u>Total Map Sheet Area</u>
Pakwash Lake	891	340,026	52,233	392,256
Wabigoon Lake	331	354,438	46,026	400,464
Seine River	257	296,128	112,459*	408,587
Marmion Lake	394	327,730	80,964	408,694
Heaven Lake	350	380,711	23,879	404,590
Roslyn Lake	<u>356</u>	<u>370,969</u>	<u>33,599</u>	<u>404,568</u>
Totals	<u>2,579</u>	<u>2,070,002</u>	<u>349,160</u>	<u>2,419,159</u>

* Includes land and water area within USA (22,830 ha)

Table 4.1.2

DISTRIBUTION OF POLYGONS BY DOMINANT LANDFORMS WITHIN NOEGTS MAP SHEET *

<u>Dominant Landforms</u>	<u>Pakwash</u>	<u>Wabigoon</u>	<u>Seine</u>	<u>Marmion</u>	<u>Heaven</u>	<u>Roslyn</u>	<u>Total</u>
AP	2	10	21	16	8	13	70
CT	-	-	-	-	-	1	1
CW	-	-	-	-	8	3	11
ED	-	1	-	-	-	-	1
GD	6	1	2	17	5	-	31
GE	35	3	-	8	18	9	73
GK	-	4	11	24	2	4	45
GO	35	27	22	20	29	90	223
LB	-	23	2	-	-	1	26
LD	-	-	-	-	1	-	1
LP	48	55	11	58	10	1	183
ME	31	7	-	5	5	-	48
MG	246	4	13	6	87	64	420
MH	-	1	-	4	18	-	23
OT	388	119	95	82	129	47	860
R	-	-	-	-	-	1	1
RN	65	68	79	117	20	116	465
RP	18	3	-	16	-	3	40
RR	17	5	1	21	10	3	57
	891	331	257	394	350	356	2,579*

* Data derived from polygon data files

Table 4.1.3

RANKING OF LANDFORMS IN TERMS OF THEIR OCCURRENCE
WITHIN THE STUDY AREA

<u>Landform</u>	<u>No. of Polygons</u>	<u>%</u>
OT	860	33.3
RN	465	18.0
MG	419	16.2
GO	223	8.6
LP	183	7.0
GE	73	2.8
AP	70	2.7
RR	57	2.2
ME	48	1.8
GK	45	1.7
RP	40	1.5
CD	31	1.2
LB	26	1.0
MH	14	.5
CW	11	.4
Others (CT, ED)	<u>5</u>	<u>.2</u>
	2,579	99.1

Table 4.2.1	-	Pakwash Lake
4.2.2	-	Wabigoon Lake
4.2.3	-	Seine River
4.2.4	-	Marmion Lake
4.2.5	-	Heaven Lake
4.2.6	-	Roslyn Lake

These tables have been generated from the polygon attribute and map data files which detail the NOEGTS attributes, dominant and subdominant landforms, the drainage characteristic, the predicted Prime Land Class and Subclass for the dominant and subdominant and the polygon area.

The data has been summarized in Table 4.2.7.

4.3 Strata Groupings

Nine "strata" groupings were selected by the Ministry of Natural Resources. The various groupings are detailed in Section 3.4. This section outlines the area distribution of the selected strata groupings for each of the map sheets.

Table 4.3.1	-	Pakwash Lake
4.3.2	-	Wabigoon Lake
4.3.3	-	Seine River
4.3.4	-	Marmion Lake
4.3.5	-	Heaven Lake
4.3.6	-	Roslyn Lake

Distribution of Prime Land Class and Subclass
by Dominant and Sub-Dominant Categories
for Pakwash Lake

34

Table 4.2.1

Dom- inant	Sub dominant	Area Ha.	Percent
1c		7,896.532	2.322
	3o	2,507.244	0.737
1c		10,403.776	3.060
2d		55,635.540	16.363
	3o	7,049.927	2.073
	3r	9,448.400	2.779
2d		72,133.867	21.215
2i		1,221.909	0.359
	3r	5,646.326	1.661
2i		6,868.235	2.020
2p		962.198	0.283
	3r	3,607.062	1.061
2p		4,569.260	1.344
2sf		2,356.484	0.693
2sm		70,645.550	20.777
	3o	31,245.090	9.189
2sm		101,890.640	29.967
2ss		40,509.300	11.914
	3o	11,020.850	3.241
2ss		51,530.150	15.155
3o		25,582.000	7.524
3r		5,948.113	1.749
3vs		58,743.810	17.277
		340,026.335	100.003

Distribution of Prime Land Class and Subclass
by Dominant and Sub-Dominant Categories
for Wabigoon Lake

35

Dom
inant

Sub-
Dominant

Area Ha.

Percent

Table 4.2.2

1f		1,165.289	0.329
	2d	3,452.369	0.974
	3o	1,262.309	0.356
	3r	94,408.890	26.637
		-----	-----
1f		100,288.857	28.296
2d		24,510.810	6.916
	1f	2,532.020	0.714
	3r	39,434.440	11.126
		-----	-----
2d		66,477.270	18.756
2i		436.597	0.123
	3o	283.271	0.080
		-----	-----
2i		719.868	0.203
2p		3,917.403	1.105
	3r	1,285.213	0.363
		-----	-----
2p		5,202.616	1.468
2sf		12,870.680	3.631
	2ss	62,977.510	17.769
	3o	1,989.558	0.561
		-----	-----
2sf		77,837.748	21.961
2ss		19,682.190	5.553
	2sf	38,581.120	10.885
	2ss	382.395	0.108
	3o	9,293.590	2.622
	3r	1,545.187	0.436
		-----	-----
2ss		69,484.482	19.604
3o		21,828.690	6.159
	1f	673.570	0.190
	2d	3,481.342	0.982

TABLE 4.2.2 con'd

12/ 8/87

SOIL REPORT
BY DOMPRIME/SUBPRIME
FOR "WABIGOON LAKE"

DOM- PRIME	SUB- PRIME	AREA (HA)	PER- CENT
=====	=====	=====	=====
3o	2i	408. 207	0. 115
	2p	377. 769	0. 107
	3r	24. 837	0. 007
		-----	-----
3o		26, 794. 415	7. 560
3r		1, 424. 098	0. 402
3vs	3r	6, 209. 068	1. 752
		=====	=====
		354, 438. 421	100. 002

Distribution of Prime Land Class and Subclass
by Dominant and Sub-Dominant Categories
for Seine River

37

Table 4.2.3

Dom inant	Sub- Dominant	Area Ha.	Percent
1c	3c	3,083.699	1.043
	3r	334.795	0.113
		-----	-----
1c		3,423.494	1.156
1f		54.708	0.018
	3r	3,968.522	1.340
		-----	-----
1f		4,023.230	1.359
2c		9,097.967	3.072
	1f	1,480.178	0.502
	2sf	1,217.807	0.411
	2ss	1,861.385	0.629
	3c	2,500.684	0.843
	3r	31,557.240	10.657
		-----	-----
2d		47,723.263	16.116
2i		3,717.061	1.255
	1f	861.538	0.271
	2d	201.349	0.068
		-----	-----
2i		4,779.948	1.614
2sf	2d	75,580.770	25.523
	3c	571.798	0.193
		-----	-----
2sf		76,152.568	25.716
2ss		106.011	0.036
	2d	287.284	0.097
		-----	-----
2ss		393.296	0.133
2ss		46,202.950	15.602
	1c	1,130.837	0.382
	1f	9,042.504	3.054
	2d	159.652	0.054
	3c	1,572.873	0.531

TABLE 4.2.3 cont'd

1/21/82

PAGE 2

SOIL REPORT
BY DONPRIME/SUBPRIME
FOR "SEINE RIVER"

DOM- PRIME	SUB- PRIME	AREA (HA)	PER- CENT
2ss	3s	51,187,620	17.286
	3r	725,070	0.241
2ss		110,021,506	37.154
3s		29,892,980	10.075
	1f	1,230,411	0.416
	2d	700,603	0.237
	2p	1,825,007	0.616
	2sf	4,085,797	1.360
	3r	6,431,994	2.174
3s		41,173,792	14.417
3r		50,702	0.017
3vs		1,543,875	0.521
	1f	3,842,686	1.276
3vs		5,386,561	1.817
		296,123,446	100.001

Distribution of Prime Land Class and Subclass
by Dominant and Sub-Dominant Categories
for Marmion Lake

39

Table 4.2.4

Dom inant	Sub- Dominant	Area Ha.	Percent
1c	3r	343.491	0.105
1f	2p	225.932	0.069
	2ss	248.018	0.076
1f		473.950	0.145
2d		14,187.710	4.329
	2p	906.759	0.277
	2ss	351.065	0.107
	3o	2,062.125	0.629
	3r	1,589.179	0.485
2d		19,096.838	5.827
2i		285.763	0.087
2p		9,072.785	2.768
	3r	5,083.985	1.551
2p		14,156.770	4.320
2sf		1,763.659	0.538
2sm		343.050	0.105
2ss		5,019.314	1.532
	2d	5,870.461	1.791
	3o	2,343.533	0.715
	3r	2,909.343	0.888
2ss		16,142.651	4.926
3o	2p	46.523	0.014
3o		6,713.998	2.049
	2p	1,861.819	0.568
	3R	217.543	0.066
	3r	4,172.126	1.273
3o		12,965.486	3.956

SOIL REPORT
BY DOMPRIME/SUBPRIME
FOR "MARMION LAKE"

TABLE 4.2.4 con'd

DOM- PRIME	SUB- PRIME	AREA (HA)	PER- CENT
=====	=====	=====	=====
3r		129,893.000	39.634
	3o	38,914.880	11.874
	3vr	1,599.368	0.488
	3vs	277.595	0.085
		-----	-----
3r		170,684.842	52.081
3vr		88,098.380	26.881
	2p	3,328.675	1.016
		-----	-----
3vr		91,427.055	27.897
		=====	=====
		327,730.078	100.000

Distribution of Prime Land Class and Subclass
by Dominant and Sub-Dominant Categories
for Heaven Lake

41

Table 4.2.5

Dom inant	Sub- Dominant	Area Ha.	Percent
1c	2p	4,705.264	1.236
2d		56,092.730	14.734
	1c	102.279	0.027
	2p	5,376.074	1.412
	2ss	24,735.130	6.497
	3o	1,745.751	0.459
	3r	925.631	0.243
	3vs	908.737	0.239

2d		89,886.332	23.610
2i		10,293.540	2.704
	2ss	2,863.275	0.752
	3vs	316.633	0.083

2i		13,473.448	3.539
2p		10,389.980	2.729
	2d	1,095.432	0.288
	2ss	6,987.476	1.835
	3o	1,355.835	0.356

2p		19,829.723	5.209
2sm		18,959.440	4.980
	2d	1,435.913	0.377
	2p	4,569.292	1.200
	3o	2,529.617	0.664
	3vr	3,918.118	1.029
	3vs	7,812.237	2.052

2sm		39,224.617	10.303
2ss		27,732.420	7.284
	2d	8,164.401	2.145
	2p	9,138.893	2.401
	2vr	1,378.115	0.362
	3o	25,763.510	6.767
	3r	16,639.820	4.371

SOIL REPORT
BY DOMPRIME/SUBPRIME
FOR "HEAVEN LAKE"

TABLE 4.2.5 con'd

DOM- PRIME	SUB- PRIME	AREA (HA)	PER- CENT
=====	=====	=====	=====
2ss	3vs	6,631.273	1.742
		-----	-----
2ss		95,448.432	25.071
3o		34,539.610	9.073
	2d	6,746.504	1.772
	2p	3,580.273	0.940
	2ss	7,011.565	1.842
		-----	-----
3o		51,877.952	13.627
3r		739.260	0.194
3vr	2ss	9,057.850	2.379
3vs		28,784.110	7.561
	2sm	1,247.445	0.328
	2ss	15,408.150	4.047
	3sm	11,028.430	2.897
		-----	-----
3vs		56,468.135	14.832
		=====	=====
		380,711.013	100.001

Distribution of Prime Land Class and Subclass
by Dominant and Sub-Dominant Categories
for Roslyn Lake

Table 4.2.6

Dom- inant	Sub- Dominant	Area Ha.	Percent
1c		928.637	0.250
2d		128,794.400	34.719
	1c	31.682	0.009
	2ss	1,223.180	0.330
	3r	1,354.251	0.365

2d		131,403.513	35.422
2di		41.931	0.011
2i		988.375	0.266
	1c	1,977.317	0.533
	2ss	1,081.697	0.292
	3o	230.293	0.062
	3r	5,748.927	1.550

2i		10,026.609	2.703
2p		742.607	0.200
	3o	729.651	0.197
	3r	606.961	0.164

2p		2,079.219	0.560
2sd	3r	867.955	0.234
2sm		4,163.420	1.122
	3o	5,385.816	1.452
	3r	37,993.470	10.242

2sm		47,542.706	12.816
2ss		831.439	0.224
	3o	2,817.539	0.760
	3r	1,041.450	0.281

2ss		4,690.428	1.264
3o		8,222.361	2.216

SOIL REPORT
BY DOMPRIME/SUBPRIME
FOR "ROSLYN LAKE"

TABLE 4.2.6 con'd

DOM- PRIME	SUB- PRIME	AREA (HA)	PER- CENT
=====	=====	=====	=====
3o	2p	9.273	0.002
	3r	1,717.000	0.463
		-----	-----
3o		9,948.634	2.682
3r		3,617.156	0.975
3vs		156,391.700	42.158
	3o	3,044.785	0.821
		-----	-----
3vs		159,436.485	42.979
3o		386.037	0.104
		=====	=====
		370,969.309	100.001

TABLE 4.2.7

SUMMARY OF PRINELAND CLASS/SUBCLASSES
NORTHWESTERN AND NORTH CENTRAL REGION
MOGOTS STUDY TEST

PRINELAND CLASS/SUBCLASS

Map Sheet	1f	1c	2d	2i	2p	2ef	2em	2ee	3d	3va	3r
	ha	ha	ha	ha	ha	ha	ha	ha	ha	ha	ha
Pahwah		10,404	72,134	6,868	4,569	2,356	101,891	51,530	25,582	58,744	5,948
Mabigoon	100,289	28.2	66,477	720	5,203	77,838	29.9	69,484	26,794	6,209	1,424
Seine R.	4,623	1.3	3,423	4,780	1.5	76,153	0.1	110,021	44,174	5,387	51
Marmion L	474	0.1	343	286	14,157	1,764	343	16,142	13,012	91,427	170,685
Heaven L		4,705	89,886	13,473	19,830	0.6	39,225	95,449	51,870	65,526	739
Roelyn L		929	131,445	10,027	2,079	47,543	12.8	5,358	10,335	159,436	3,617
Total	104,786	5.1	19,804	36,154	45,838	158,111	189,395	340,184	171,775	386,729	182,464
				1.7	2.2	7.6	9.1	16.0	8.3	18.7	8.8

Map Sheet	Total ha.
Pahwah	340,026
Mabigoon	354,430
Seine R.	296,138
Marmion L	327,730
Heaven L	380,711
Roelyn L	370,969
Total	2,070,002

Distribution of Strata
Pakwash Lake

Table 4.3.1

STRATA	LAND- FORM	AREA (Ha)	PER- CENT
=====	=====	=====	=====
1	ME, MH	14,874.710	4.375
2	MG	33,347.910	9.807
3	GE, GK	4,705.419	1.384
4	GD, GO, LB, LD	26,467.810	7.784
6	DT	25,582.440	7.524
7	RL, RP	36,578.120	10.757
8	RN, RR	68,258.750	20.074
9	/R	129,635.400	38.125
10	AP	576.932	0.170
		=====	=====
		340,027.491	100.000

Distribution of Strata
Wabigoon Lake

Table 4.3.2

STRATA	LAND- FORM	AREA (Ha)	PER- CENT
0		724. 454	0. 204
1	ME, MH	8, 634. 193	2. 436
2	MG	11, 759. 780	3. 318
3	GE, GK	1, 750. 937	0. 494
4	GD, GO, LB, LD	42, 119. 360	11. 883
5	LP	103, 641. 200	29. 241
6	DT	25, 876. 810	7. 301
7	RL, RP	4, 033. 368	1. 138
8	RN, RR	143, 167. 800	40. 393
9	/R	7, 754. 253	2. 188
10	AP	4, 976. 618	1. 404
		=====	=====
		354, 438. 773	100. 000

Distribution of Strata
Seine River

Table 4.3.3

STRATA LAND- FORM	AREA (Ha)	PER- CENT
=====	=====	=====
2 MG	31,288.130	10.566
3 GE, GK	4,307.805	1.455
4 GD, GO, LD, LD	13,384.680	4.520
5 LP	7,600.226	2.567
6 DT	31,708.210	10.708
8 RN, RR	191,120.200	64.540
9 /R	884.722	0.299
10 AP	15,834.840	5.347
	=====	=====
	296,128.813	100.000

Distribution of Strata
Marmion Lake

Table 4.3.4

STRATA	LAND- FORM	AREA (Ha)	PER- CENT
0		2,323.843	0.709
1	ME, MH	1,183.846	0.361
2	MG	309.131	0.094
3	GE, GK	5,801.585	1.770
4	GD, GO, LB, LD	8,307.471	2.535
5	LP	12,143.130	3.705
6	DT	12,034.400	3.672
7	RL, RP	59,305.350	18.096
8	RN, RR	209,030.500	63.781
9	/R	12,376.950	3.777
10	AP	4,914.448	1.500
		=====	=====
		327,730.654	100.000

Distribution of Strata
Heaven Lake

Table 4.3.5

STRATA	LAND- FORM	AREA (Ha)	PER- CENT
=====	=====	=====	=====
0		259. 664	0. 068
1	ME, MH	26. 324. 320	6. 915
2	MG	42. 579. 510	11. 184
3	GE, GK	10. 324. 490	2. 712
4	GD, GO, LB, LD	29. 985. 710	7. 876
5	LP	14. 496. 770	3. 808
6	OT	49. 486. 660	12. 998
7	RL, RP	2. 638. 513	0. 693
8	RN, RR	69. 865. 880	18. 351
9	/R	128. 434. 000	33. 735
10	AP	6. 315. 947	1. 659
		=====	=====
		380. 711. 463	100. 000

Distribution of Strata
Roslyn Lake

Table 4.3.6

STRATA	LAND- FORM	AREA (Ha)	PER- CENT
=====	=====	=====	=====
0		698. 117	0. 188
2	MG	846. 831	0. 228
3	GE, GK	4, 959. 056	1. 337
4	GD, GD, LB, LD	135, 431. 800	36. 507
5	LP	14. 963	0. 004
6	DT	8, 868. 377	2. 391
7	RL, RP	6, 042. 272	1. 629
8	RN, RR	162, 074. 900	43. 689
9	/R	49, 686. 650	13. 394
10	AP	2, 347. 047	0. 633
		=====	=====
		370, 970. 013	100. 000

These tables have been generated from the polygon attribute data files through a program which has grouped the dominant strata identified in the attribute symbol and combined with the area data, has been developed into tables.

This data has been summarized and detailed in Table 4.3.7.

4.4 Soil Site Data

As part of the study program an extensive field data base was collected on the nature and character of the sites. Soil sample sites were randomly chosen in the selected polygons for testing. The data on each of the sites is compiled by map sheet in Appendix "H".

The data files contain extensive information on the main soil characteristic needed in the conversion of this data into Prime Land Class and Subclasses. This data has been utilized in the accuracy and reliability analysis of the "predicted" Prime Land Class (derived from the NOEGTS attribute data) with "observed" Prime Land Class data (derived from the field information).

Tables 4.4.1 to 4.4.6 details the polygon number, polygon attribute data, the predicted Prime Land Class and Subclass, the landform strata groupings, the number of samples taken and the distribution of the Prime Land Class and Subclass for the observed sitings.

Table 4.4.7 provides a summary of the sample distribution for each of the map sheets. A total 530 sample sites were taken in 98 polygons randomly selected across the six NOEGTS map sheets.

TABLE 4.3.7

AREA SUMMARY OF LANDFORM STRATA
BY MAP SHEET AND STUDY AREA

LANDFORM STRATA	PAKWASH LAKE		WABIGOON LAKE		SEINE RIVER		MAP SHEET NAME MARMION LAKE		HEAVEN LAKE		ROSLYN LAKE		TOTALS	
	Ha	%	Ha	%	Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
ME,MH	14,875	4.3	8,634	2.4			1,184	.3	26,324	6.9			51,017	2.5
MG	33,348	9.8	11,760	3.3	31,298	10.5	309	.09	42,580	11.1	847	.2	120,132	5.8
GE,GK	4,705	1.3	1,751	.4	4,308	1.4	5,802	1.7	10,324	2.7	4,959	1.3	31,849	1.5
GD,GO LB,LD	26,468	7.7	42,119	11.8	13,385	6.8	8,307	2.5	29,986	7.8	135,432	36.5	255,697	12.3
LP			103,641	29.2	7,600	2.5	12,143	3.7	14,497	3.8	15		137,896	6.1
OT	25,582	7.5	25,877	7.3	31,708	10.7	12,034	3.6	49,486	12.9	8,868	2.3	153,555	7.4
RL,RP	36,578	10.7	4,033	1.1			59,305	18.0	2,639	.6	6,042	1.6	108,597	5.2
RN,RR	68,259	20.0	143,168	40.3	191,120	64.5	209,031	63.7	69,866	18.3	162,075	43.6	843,519	40.7
X/R	129,635	38.1	7,754	2.1	884	.3	12,377	3.7	128,434	33.7	49,687	13.3	328,771	15.9
AP	577	0.1	4,977	1.4	15,835	5.3	4,914	1.5	6,316	1.6	2,347	0.6	34,966	1.7
UNCLASSIFIED			724	0.2			2,324	0.7	259	0.1	698	0.1	4,005	0.2
TOTALS	340,027		354,438		296,128		327,730		380,711		370,970		2,070,004	

SOIL/SITE FILE
PAKWASH LAKE - 5107

TABLE 4.4.1

Polygon Number	Polygon Attribute	Predicted Primeland Class	Strata	Number of Samples	Prime Land Distributic
276	sgME	2d	MEMH	5	2p=1 1f=1 2sn=1 3vs=1 2sf=1
670	sgME	2d	MEMH	5	2d=5
855	sgME	2d	MEMH	7	2d=4 1c=2 2ss=1
795	tsMG	2d	MG	5	2i=1 1f=1 2d=3
800/801	tsMG	2d	MG	5	1f=4 3vs=1
154	sGE	2d	GE, GK	5	2d=4 1f=1
261	sGE, GO	2d	GE, GK	2	1f=2
445	sgGO/MG	2d	GO, GD, LB, LD	5	2d=4 1f=1
294	sgGD	2d	GO, GD, LE, LD	6	2d=2 1f=3 2sf=1
358	scLP/R	2fm	X/R	5	1f=5
78	pOT	3o	OT	3	3o=3
301	RP (tMG, pOT)	2ss	PL, RP	6	2sf=1 1f=2 2d=2 1c=1
224	RP (tMG/R)	3vs	RL, RP	9	2d=5 2sf=2 1f=1 1c=1
827	RP (tMG, pOT)	2ss	RL, RP	11	2d=6 1c=2 2c=1 2ss=1 3o=1
637	RP (tMG/R)	3vs	RL, RP	6	1f=4 2sf=1 2p=1
874	RN (tMG, pOT/R)	2ss	RN, RR	7	2ss=2 1c=1 3i=1 2d=1 3o=1 1f=1
861	ScLP/R	2sf	X/R	3	1f=2 2sf=1

SOIL/SITE FILE

TABLE 4.4.2

WABIGOON LAKE -- 5059

Polygon Number	Polygon Attribute	Predicted Primeland Class	Strata	Number of Samples	Prime Land Distribution
81	sgtME	2d	ME, MH	6	2d=4 2i=2
162	sgtME	2d	ME, MH	6	2d=3 2i=1 3vs=1 2ss=1
287	sgtME	2d	ME, MH	6	2d=5 2i=1
110	tsMG (RN) (cnLP)	2d	MG	6	2d=2 1c=2 1f=1 3r=1
313	tsMG (RN) (sgGO)	2d	MG	6	2d=4 2p=1 3vs=1
139	gGK	2d	GE, GK	8	3r=3 2d=2 2i=3
80	sgLB	2d	GD, GO, LB, LD	6	2d=6
101	sgGO (cnLP)	2d	GD, GO, LB, LD	6	1f=2 2d=2 2p=2
19	cnLP (RN)	1f	LP	6	1f=2 1c=1 3vs=2 3o=1
98	cnLP (RN) (pOT)	1f	LP	6	1f=3 3r=2 1c=1
141	cnLP (RN)	1f	LP	10	2p=3 1f=1 2i=2 1c=4
37	pOT	3o	OT	5	3o=5
188	pOT	3o	OT	6	3o=2 2p=3 1f=1
253	RP (cnLP)	2sf	RP, RL	6	1f=3 2p=1 2ss=1 1c=1
312	RN (tsMG)	2ss	RN, RP	6	2d=5 2p=1
126	sgLB/RN (RN) cnLP	2ss	X/R	6	2i=2 1c=2 2p=1 2ss=1

SOIL/SITE FILE

TABLE 4.4.3

SEINE RIVER - 5070

Polygon Number	Polygon Attribute	Predicted Primeland Class	Strata	Number of Samples	Prime Land Distributio
102	tsMG (RN)	2d	MG	6	2ss=3 2d=1 2i=1 3r=1
128	tsMG (gGK) (RN)	2d	MG	6	2d=3 2ss=1 3vs=1 3o=1
93	sgbGK (ME)	2d	GE, GK	5	2d=4 3vs=1
155	sgGK	2d	GE, GK	5	2d=5
77	sgGO (RN)	2d	GD, GO, LB, LD	5	2d=5
238	sgGO (pOT) (RN)	2d	GD, GO, LB, LD	6	3r=3 3vs=1 2p=1 2i=1
107	sgGO (tsMG) (RN)	2d	GD, GO, LB, LD	6	2p=2 2sf=1 3r=1 2d=1 3vs=1
153	anLP (RN)	1f	LP	4	2p=2 2i=1 1c=1
141	anLP (RN)	1f	LP	5	1f=4 2i=1
178	pOT	3o	OT	5	3o=4 2p=1
156	pOT/anLP	3o	OT	5	2p=2 1f=1 3o=1 3vs=1
170	RN (tsMG)	2ss	RN, RR	7	2ss=3 3o=2 3r=1 2sf=1
157	RN (anLP) (tsMG)	2sf	RN, RR	6	2ss=3 2sf=2 2i=1
85	RN (anLP) (tsMG)	2sf	RN, RR	6	1f=2 2i=2 2ss=1 2d=1
242	RN (tsMG)	2sf	RN, RR	6	2ss=2 2i=2 3r=1 3vs=1
95	tsMG/R (sgGO)	2ss	X/R	5	2d=3 2i=2

SOIL/SITE FILE
MARMION LAKE - 5073

TABLE 4.4.4

Polygon Number	Polygon Attribute	Predicted Primeland Class	Strata	Number of Samples	Prime Land Distribution
230	tsqb (ME)	2d	ME,MH	5	2d=3 2p=1 1c=1
283	tsqbME (sgbGK)	2d	ME,MH	5	2i=2 1c=1 2sf=1 2p=1
184	gsGK (gsGD) (RN)	2d	GE,GK	5	2d=2 3vs=2 1c=1
188	gsGK	2d	GE,GK	5	2d=3 1c=1 2i=1
231	sgGO	2p	GD,GO,LB,LD	5	1c=1 3r=1 2p=1 2d=1 2sf=1
86	gsGD	2d	GD,GO,LB,LD	5	2d=4 2p=1
114	gsGD	2d	GD,GO,LB,LD	5	2d=5
219	mcLP	2p	LP	5	2d=3 2ss=1 2c=1
112	clp (mAP (RN)	2p	LP	5	2p=2 3r=2 3o=1
293	pOT (RN)	3o	OT	5	3o=2 3vs=2 2sm=1
156	pOT cLP	3o	LP	5	3o=5
237	RD	3r	RP,RL	5	2sf=3 3r=1 2d=1
286	RP (pOT)	3r	RP,RL	5	2ss=3 3vs=2
290	RP	3r	RP,RL	5	3r=3 2sf=1 3o=1
107	RN (tsMG/R)	3vs	RN,RR	6	3r=3 2ss=1 2d=1 2sf=1
220	sgGO/R (RN)	2ss	X/R	5	2d=3 1c=1 2p=1
301	tsMG/RP (pOT)	2ss	X/R	5	2d=2 3r=1 2sm=1 1c=1

SOIL/SITE FILE
HEAVEN LAKE - 5051

TABLE 4.4.5

Polygon Number	Polygon Attribute	Predicted Primeland Class	Strata	Number of Samples	Prime Land Distributio
199	tsMH(sgGK	2d	ME,MH	5	3r=2 2i=2 3o=1
90	tsMH(tsMG)	2d	ME,MH	5	2i=1 2d=1 1c=2 3r=1
278	tsMG	2d	MG	5	2d=3 3o=1 3r=1
246	tsMG(sLP)	2d	MG	5	2d=4 2i=1
346	tsMG(tsMG/R)	2d	MG	5	3r=1 1c=2 2sf=1 2d=1
225	sgGE,GK(sGO)	2d	GE,GK	5	2d=1 2ss=1 2i=13r=1
97	gsGE	2d	GE,GK	5	1c=2 2d=2 2i=1
124	sGO	2p	GO,GD,LB,LD	5	2i=2 2ss=1 2d=1 3r=1
42	sgGO(tsMG)	2d	GO,GD,LB,LD	5	2d=2 1c=2 2ss=1
61	sLP(tsMG/R)	2p	LP	5	2p=2 2sf=1 1c=2
70	sLP	1c	LP	5	2d=2 2i=2 2p=1
105	pOT	3o	OT	5	3o=4 3r=1
292	RR(tsMG/RR)	3vs	RN,RR	5	2ss=1 2p=1 2d=1 2i=1 3r=1
227	RN(tsMG/R)	3vs	RN/RR	5	2p=1 3r=1 2ss=1 1c=1 3o=1
96	tsMG/RP	2ss	X/R	5	2p=1 1c=2 2sf=1 3r=1
330	tsMG/R(pOTsGO)	2ss	X/R	6	2sf=3 1c=1 3r=1 3o=1

SOIL/SITE FILE

TABLE 4.4.6

ROSLYN LAKE - 5079

Polygon Number	Polygon Attribute	Predicted Primeland Class	Strata	Number of Samples	Prime Land Distribution
324	tbMG (RN,pOT)	2d	MG	5	3r=2 3vs=2 2ss=1
190	sgGE sgGK	2d	GE,GK	2	2d=2
110	gGE,gsGK (RN)	2d	GE,GK	3	2d=2 2i=1
111	sgGK sgGE sgGO (RN)	2d	GE,GK	5	2d=5
74	sgGK GE/R (RN)	2d	GE,GK	5	2ss=2 2sf=1 2d=1 2p=1
311	sgGO	2d	GD,GO,LB,LD	5	2d=3 3r=2
323	sgGO/tMG	2d	GD,GO,LB,LD	5	3r=2 3o=1 2d=1 2p=1
273	sgGO (RN)	2d	GD,GO,LB,LD	5	2d=5
162	pOT	3o	OT	6	3o=5 2p=1
177	pOT/sgGO (RN)	3o	OT	5	2p=5
320	RN (tMG/R)	3vs	RN,RR	10	3r=7 2ss=3
168	RN (tMG/R)	3vs	RN,RR	5	3r=2 2ss=2 3vs=1
214	RN (tMG pOT/R)	2sm	RN,RR	5	3vs=2 3r=1 2ss=1 1f=1
119	tMG/R (RN,pOT)	2ss	X/R	5	3r=2 2d=2 3o=1
57	sgGO/tMG/R (RN)	2d	X/R	5	2i=3 2sf=1 2p=1
59	sgK/R	2ss	X/R	5	2i=2 2d=2 1c=1

TABLE 4.4.7

SUMMARY DISTRIBUTION OF SOIL/SITE SAMPLES
AND POLYGONS TESTED

<u>Map Sheet</u>	<u>No. of Polygons Tested</u>	<u>No. of Sample Sites</u>
Pakwash Lake	18	95
Wabigoon Lake	16	101
Seine River	16	88
Marmion Lake	17	86
Heaven Lake	16	81
Roslyn Lake	<u>16</u>	<u>81</u>
	99	532

5.0 ANALYSIS AND FINDINGS

This section details the accuracy assessment of the randomly selected polygons and the dominant strata they represent. Field sample sites were randomly distributed through these polygons or dominant strata groups. The "observed" Prime Land Class from the field sample sites were compared to the "predicted" Prime Land Class derived from the NOEGTS polygon attribute data within which the sample site was located. The data on the agreements and disagreements between the observed and predicted Prime Land Class is detailed in Appendix "I" and summarized in the following sections.

The three accuracy levels of 80, 70, and 60 percent were utilized to determine if the individual strata were accurately predicted and if the associated error rates were within acceptable limits. Two separate statistical test were used for this purpose.

The Standard Difference was used to determine if the observed accuracy rate was significantly different from the predicted accuracy level. A CHI² Distribution Test was then used to determine if the error rates observed were significantly worse than the predicted error rates. A further statistical testing was conducted to determine if the differences in error rates observed between the nine different strata and various strata groupings were significantly different using the CHI² 2 X 2 contingency table.

5.1 Standard Difference

The three levels of accuracy were used as the predicted accuracy rates and compares with the observed accuracy rates derived from the field sampling. For each of the nine strata the observed accuracy rate was determined by totalling the number of Prime Class observations in agreement with the predicted Prime Land Class and dividing it by the total number of observations in each strata. Using the graph in Figure 5.1.1 the Standard Differences were determined.

Figure 5.1.1

Ninety-Five Percent Confidence Limits for
Estimates of Proportion

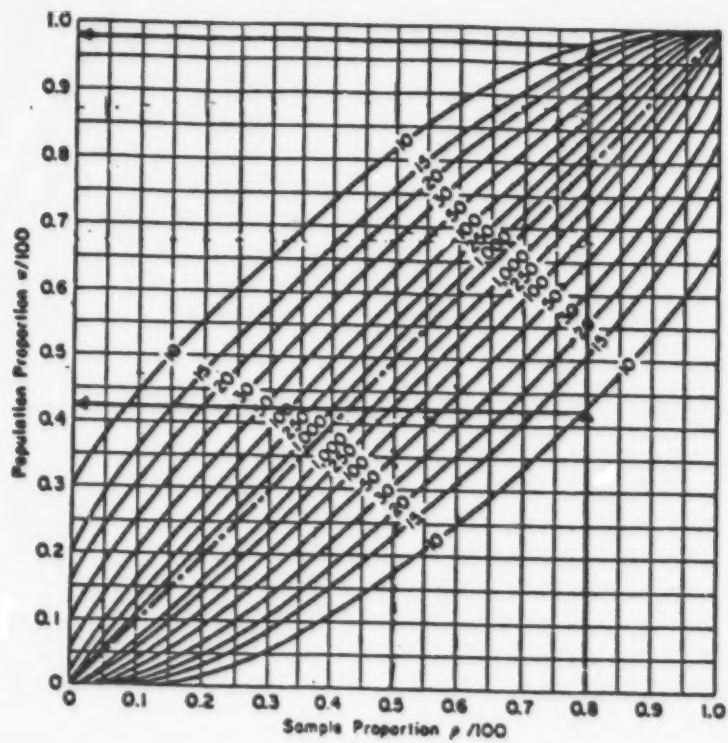


Table 5.1.1

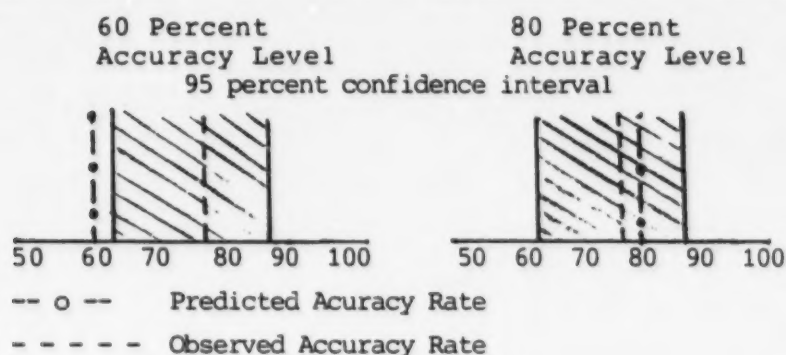
Summary of Agreements and Disagreements and Confidence Intervals
at the 95% Level for Each Strata

<u>Strata</u>	<u>Total Observations</u>	<u>No. Agree</u>	<u>No. Disagree</u>	<u>Proportion Agree %</u>	<u>95% Confidence Interval</u>	
					<u>Lower^a</u>	<u>Upper</u>
ME, MH	55	42	13	76	62	86
M6	54	31	23	57	42	68
GE, GK	60	46	14	76	62	86
GD, GO LB, LD	80	58	22	72	60	82
LP	51	26	25	51	35	64
OT	50	35	15	70	55	82
RL, RP	53	20	33	37	24	51
RN, RR	74	44	30	59	48	70
X/R	55	33	22	60	47	73

The Standard Difference curves provided the range of values within which the true accuracy rate is found at the 0.05 significance level. If the predicted accuracy level fell outside this range, the predicted value is significantly different than the observed value at the 0.05 significance level (see Figure 5.1.2). For example, utilizing the data for ME, MH it can be confidently stated that at the 95 percent level the true proportion of agreement or error rate for this strata lies between 62 and 86 percent. At the predicted level of accuracy of 60 percent the proportion of agreement lies outside the 62-86 percent range. Thus the true error rate is significantly different than the predicted error rate. As the 70 and 80 percent predicted accuracy levels fall within the 62-86 percent range, the true error rate is not significantly different than the predicted error rate.

Figure 5.1.2

Comparison of Observed and Predicted Accuracy Rates



For strata ME, MH the 60 percent Predicted Accuracy Rate falls outside the 95 percent confidence interval indicating that the Observed Accuracy Rate was significantly different than the predicted. The 80 percent Predicted Accuracy rate falls inside the 95 percent Confidence Interval indicating that the observed accuracy rate was not significantly different than the predicted.

Table 5.1.2 summarizes the distribution of strata by significant difference between the observed and the predicted accuracy levels.

Table 5.1.2

Difference Between the Observed And Predicted
Accuracy Levels at a Significance of .05

<u>Strata</u>	<u>Significant difference from the Predicted Accuracy Level</u>		
	<u>60%</u>	<u>70%</u>	<u>80%</u>
ME, MH	YES	NO	NO
MG	NO	YES	YES
GE, GK	YES	NO	NO
GD, GO, LB, LD	NO	NO	NO
LP	NO	YES	YES
OT	NO	NO	NO
RL, RP	YES	YES	YES
RN, RR	NO	NO	YES
X/R	NO	NO	YES

NOTE: YES indicates that difference is outside of the 95 percent confidence level
 NO indicates that difference is within the 95 percent confidence level

At the 80% accuracy level four strata are not significantly different than predicted. These are: ME, MH; GE, GK; GD, GO, LB, LD; OT. At the 60% accuracy level three strata are significantly different than predicted, namely ME, MH; GE, GK; RL, RP.

For those strata which are significantly different the Standard Difference Test cannot indicate whether the error rate is significantly better or worse than the predicted error rate.

5.2 Determination of Acceptable Error Rates (CHI² Distribution)

Using the CHI² distribution test, it can be determined if the error rate of each strata is acceptable or not at a predicted accuracy level. The equations and table of CHI square values used in this determination are detailed in Appendix J.

Table 5.2.1 presents the predicted error rates, and CHI² values at 60, 70 and 80 percent accuracy levels for each strata.

Table 5.2.1

Predicted Error Rates, CHI^2 Values
at the 60%, 70% and 80%
Accuracy Levels for Each Strata

<u>Strata</u>	<u>Actual No. of Samples in Error</u>	<u>Predicted No. of Samples in Error at 60% Accuracy</u>	<u>CHI^2 Value (60%)</u>	<u>Predicted No. of Samples in Error at 70% Accuracy</u>	<u>CHI^2 Value (70%)</u>	<u>Predicted No. of Samples in Error at 80% Accuracy</u>	<u>CHI^2 Value (80%)</u>
ME, MH	13	22.0	0.00	16.5	0.00	11.0	.45
MG	23	21.6	0.15	16.2	4.28	10.8	17.23
GE, GK	14	24.0	0.00	18.0	0.00	12.0	1.66
GD, GO LB, LD	22	32.0	0.00	24.0	0.00	16.0	2.81
LP	25	20.4	1.72	15.0	9.52	10.2	26.84
OT	15	20.0	0.00	15.0	0.00	10.0	3.12
RL, RP	33	21.2	10.99	15.9	26.27	10.6	59.17
RN, RR	30	29.6	0.01	22.5	3.57	14.8	19.51
X/R	22	2.2	0.00	16.5	2.61	11.0	13.75

Note: When the CHI^2 value exceeds 3.841 the level of error is significant

Essentially, at each level of predicted accuracy for each strata the number of errors observed were compared to the number of errors predicted. The difference between these values were assessed at the 0.05 significance level. For example, the results in Table 5.1.1 for strata ME, MH show at the 60 percent accuracy level 22 samples were predicted in error, while in fact only 13 samples were observed to be in error. Because the observed error rate is less than predicted, the CHI value becomes 0.00. This is also observed in the 70 percent accuracy level. At the 80 percent accuracy level the predicted value is less than the observed; however, the CHI² value is less than the critical CHI² value of 3.841 obtained for the 0.05 level of significance with 1 degree of freedom.

Table 5.2.2 summarizes the results of this assessment.

Table 5.2.2
Error Rate Exceeding Acceptable Error Rates
at .05 Significance Level
with 1 Degree of Freedom (3.841)

<u>Strata</u>	<u>Accepted Error Rate Exceeded</u>		
	<u>60%</u>	<u>70%</u>	<u>80%</u>
ME, MH	NO	NO	NO
MG	NO	YES	YES
GE, GK	NO	NO	NO
GD, GO, LB, LD	NO	NO	NO
LP	NO	YES	YES
OT	NO	NO	NO
RL, RR	YES	YES	YES
RN, RR	NO	NO	YES
X/R	NO	NO	YES

The CHI² dispersion test shows that the error rate of the strata that were significantly different using the Standard Difference Test at the 60% level were within acceptable rates of error for strata ME, MH and GE, GK, while unacceptable for the strata

RL, RP. The CHI² test also provides a basis and method of ranking the strata by level of accuracy. It can be determined if the true error rate falls within one of the following accuracy classes: > 80 percent, 79 - 70 percent, 69 - 60 percent and < 60 percent. four strata fall within accuracy Class one (OT; GD,GO,LB,LD; GE, GK; ME,MH), two strata fall into Class 2 (X/R; RN,RR), two strata in Class 3 (LP; MG), and one strata in Class 4 (RL, RP). Table 5.1.3 shows this distribution.

Table 5.2.3
Distribution of Accuracy Classes

Class 1 (>80%)	Class 2 (79 - 70%)	Class 3 (69 - 60%)	Class 4 (<60%)
OT GD,GO,LB,LD GE,GK ME,MH	X/R RN,RR	LP MG	RL,RP

The CHI² Distribution Test shows that strata OT; GD,GO,LB,LD; GE, GK and ME,MH will accurately predict the Prime Land Class 80 percent of the time or 8 times out of 10. The strata X/R and RN, RR in Accuracy Class 2 will accurately predict the Prime Land Class between 7 and 8 times out of 10. Strata LP and MG (Class 3) will accurately predict prime land class between 6 and 7 times out of 10. Strata RL,RP (Class 4) will accurately predict Prime Land Class 6 times out of 10.

5.3 Detecting Differences Between Strata

The results of the CHI² Distribution Test does not provide a way to tell if the differences in the true error rate between strata are significantly different. By utilizing the CHI² 2 X 2 contingency table a comparison can be made between the true error rates of all strata to determine if at the 0.05 significance level they are different. By comparing each strata to the eight others it can be determined how different each strata is. This pattern is illustrated in Figure 5.3.1.

Figure 5.3.1

Detecting Differences between the True Error Rate of Each Strata. If the CHI^2 Value Exceeds 3.841, the True Error Rates are Strata Dependent.

(The true error rate of each strata compared to the true error rate of 8 other strat (CHI^2 values) and significant difference determined (yes/no))

	<u>ME, MH</u>	<u>MG</u>	<u>GE, GK</u>	<u>GD, GO</u> <u>LB, LD</u>	<u>LP</u>	<u>OT</u>	<u>RL, RP</u>	<u>RN, RR</u>	<u>X/R</u>
ME, MH		NO	NO	NO	YES	NO	YES	NO	NO
MG	3.34		YES	NO	NO	NO	NO	NO	NO
GE, GK	0.24	3.97		NO	YES	NO	YES	NO	NO
GD, GO LB, LD	0.09	0.73	0.13		YES	NO	YES	NO	NO
LP	9.63	0.22	10.36	5.37		NO	NO	NO	NO
OT	0.29	2.27	0.33	0.01	3.06		YES	NO	NO
RL, RP	13.98	3.39	15.99	14.48	0.11	9.50		YES	YES
RN, RR	3.33	0.003	3.7	2.37	0.57	1.01	4.99		NO
X/R	2.68	0.006	2.97	1.78	0.54	0.75	4.49	0.01	YES

CHI^2 Values

It was found that of the 36 comparisons, only ten had significant differences. By graphically portraying the various strata, a relative sense of the degree of difference between the strata can be seen as illustrated in Figure 5.3.2.

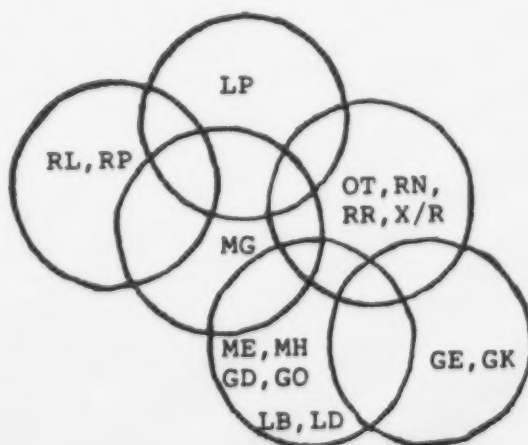
Figure 5.3.3 demonstrates the scatter/overlap patterns of the error rates of the strata. The strata at the extremes (RL,RP and GE,GK) have true error rates which are significantly different. The error rates are strata dependent in 28 percent of the cases. This test indicates that the differences observed in the true error rates are due to some strata being significantly better at predicting the Prime Land Class than other strata. It is difficult to say to what degree of influence factors such as translating the NOEGTS Legend into Prime Land Class, the mistyping on the maps or the cartographic errors have on the error rates observed.

Utilizing the CHI² 2 X 2 Contingency Table shows that the error rates observed in strata GE,GK are significantly different from those in strata RL,RP. A difference can be detected between the various strata indicating that the errors are attributable to how well each strata can predict the Prime Land Class. It also indicates that strata RL,RP is the most different strata. It is different from all but two strata LP and MG. Strata RL,RP is very poor at predicting the Prime Land Class.

Figure 5.3.3

Diagrammatic Representation of the Significant Relationships Between Strata

(Overlapping circles indicate no significant difference detected between the true error rates of these strata)



5.4 Detecting Error Rates Between Accuracy Classes

Because of the scatter in the detection of differences in true error rate, the grouping of strata into relative accuracy classes is appropriate. The accuracy classes identified in Section 5.2 were used to regroup the data into new strata and determine if the errors observed in this new stratification were strata dependent. Again using the CHI^2 2 x 2 contingency table, the true error rates of the four accuracy classes were compared to each other and a determination made of their difference at the 0.05 significance level. Because the CHI^2 value between Class 3 and Class 4 was very close to the 0.05 value at one degree of freedom (3.841), it was decided to group Class 2 and Class 3 and recalculate the CHI^2 table. This resulted in the formation of three classes whose error rates are class dependent. These three classes represent reliability classes. Figure 5.4.1 shows the significant relationship between the three reliability classes.

Figure 5.4.1

Detecting Differences in True Error Rate Between Reliability Classes

	Class 1	Class 2	Class 3	
Class 1	-	Yes	Yes	)
Class 2	13.94	-	Yes	)
Class 3	5.57	5.86	-	)
CHI^2 Values				

Note: If the CHI^2 value exceeds 3.841, the true error rates are class dependent.

Using the CHI^2 2 x 2 Contingency Table each strata can be identified with a Reliability Class whose error rate is significantly different than the other two Classes. Each of the NOEGTS maps can be classified by areas into Reliability Classes. The following shows the relationship between Reliability Classes and strata:

Class 1	80 percent	- ME,MH; GE,GK; GO,GD,LB,LD; OT
Class 2	60 - 79 percent	- X/R; RN,RR; MG; LP
Class 3	60 percent	- RL,RP

Based on this it is now possible to identify for any strata within the study area the degree of error likely to be encountered and that the error is due to the strata being different from the other strata included within the other Reliability Classes. Strata in Class 1 will predict Prime Land Class significantly better than the strata in Classes 2 and 3 and will accurately predict the Prime Land Class 8 times out of 10.

An examination of the sample data for frequency of class and subclass observed by strata provides an indication as to the origins of the errors observed in the conversion of the NOEGTS legend into the Prime Land Class and Subclass.

All the strata falling within Reliability Class 1 are characterized by a very strongly represented single class and subclass. In the case of ME, MH; GE, GK; GO, GD, LB, LD, a very strong presence of class 2d was observed with a small number of observations in most of the other classes and subclasses. The algorithm predicted Class 2d almost to the exclusion of all other classes and subclasses for these strata. This resulted in a high accuracy level and reliable conversion of the NOEGTS strata to Prime Land Class. Likewise for strata OT. Class 3o was very strongly observed with a minor distribution of other elements, primarily 2p. The strong single class and subclass distribution observed and predicted allowed for an acceptable accuracy and reliable conversion.

The strata falling into Reliability Class 2 are less reliable in predicting the Prime Land Class. The observed frequency of

class and subclass for each of the strata show some unique peculiarities. Strata LP was observed to be equally split between Prime Land Class 1 and Class 2 due to drainage and textural differences. The Algorithm predicted primarily Prime Land Class 1 with some Class 2. As a result there is some correlation but it appears to be difficult to reliably predict the right class based on the existing NOEGTS Legend.

Strata MG and X/R are both predicted as having a very strong single Prime Land Class and Subclass. When observed in the field they do not appear to have that distribution pattern; although there is a noticable correlation between the predicted and observed Prime Land Class 2d for strata MG. There is a large component of Class 1 and Class 3 which the algorithm did not recognize and caused a less reliable conversion. In the case of strata X/R there was a very strong single Prime Land Class of 2ss predicted but no corresponding observation of these shallow soils in the field. Deep soils were observed rather than the shallow soils and the Prime Land Class was distributed between 1, 2 and 3. Predominance of the error rate is due to the deep soils. Although the shallow subclass was wrongly predicted, the Prime Class of 2 was generally correct, thus resulting in a moderate agreement between the predicted and observed.

Strata RN, RR was predicted as having a broader distribution of Prime Land Class and Subclass than most other strata. It was predicted as having dominantly a shallow soil and bare bedrock. It was observed to have a strong shallow component, but was not observed to have large amounts of bare bedrock. Although Bare Rock was predicted, organic soils were observed to be a significant component. This resulted in a greater degree of reliability in prediction of Prime Land Class 3 than would have otherwise been expected.

No reliable systematic way can be seen to better convert these NOEGTS strata to Prime Land Class due to inherent lack of data in the NOEGTS Legend.

The strata comprising RL,RP are the only strata which fall within Reliability Class 3. The relationship between the observed and predicted Prime Land Class is at odds. The strata RL,RP were predicted to be dominantly bare rock to shallow soils. It was observed to be dominantly deep soils split between sands and coarse loamy and finer textured soils. Field observations noted that this strata was mistyped on the NOEGTS mapping and frequently confused with a lacustrine landform, especially on the Pakwash map sheet.

5.5 Map Accuracy

Map accuracy was determined by comparing the percentage of the map area occupied by each Reliability Class. The area of all strata occurring within each class was totalled for each map sheet. The results are shown in Table 5.5.1.

The NOEGTS maps have an average of 25% of their land surface classed as reliable 80% of the time or better. This average is, however, not distributed equally amongst the map sheets. The area of reliably classed Prime Land ranges from 8% to 40%.

On average 69% of the land surface is classed as between 60% and 79% less reliably classed. There is also a range of area values in this class between 57% and 75%.

The average of poorly classed land area for the study is 5 percent. It ranges between 0 and 11%.

Table 5.5.1

Reliability Class Area by Map Sheet

	Reliability Class 1		Reliability Class 2		Reliability Class 3		Other*		Total	
	ha	%	ha	%	ha	%	ha	%	ha	%
Pakwash Lake	71,630	21	231,242	68	36,578	11	577	1	340,027	100
Wabigoon Lake	78,381	22	266,322	75	4,033	1	5,701	2	354,438	100
Seine River	49,401	17	230,892	78	-	-	15,835	5	296,128	100
Marmion Lake	27,327	8	233,860	71	59,305	18	7,237	2	327,730	100
Heaven Lake	116,120	30	255,377	67	2,639	1	6,575	2	380,711	100
Roslyn Lake	149,259	40	212,624	57	6,042	2	3,045	1	370,970	100
TOTAL	492,118	24	1,430,318	69	108,597	5	38,971	2	2,070,004	100

*Other: AP-Alluvial Plain and unclassified CT,CW strata

These results indicate a relatively poor reliability for predicting the Prime Land Class for all of the maps listed. None of them has over 50% of their land surface reliably classified for predicting the Prime Land Class.

6. ANALYSIS OF OLI AND OTHER SOURCE BASE INFORMATION

As part of the overall study, an evaluation was to be undertaken of the information provided by the Agriculture Canada Soils map and the Ontario Land Inventory Land Classification maps as to whether they could add anything to the predictive capability of the NOEGTS Prime Land Class Conversion algorithm. The Agricultural Canada soil mapping does provide more specific information on the soils; however, it is confined to relatively small areas within the Northwestern and North Central Regions. In terms of the current study, the Agricultural Canada soils maps could only provide information for the Wabigoon Lake map sheet and only for the area within the environs of Dryden. While the information could provide more specific data for this area and add to the understanding of the soils, it could not be extrapolated readily to the other map sheets included in this study. The Ontario Land Inventory Land Classification mapping extended across the two regions and does provide another universal coverage comparable to the NOEGTS.

6.1 Comparative Analysis of the OLI Data

The Ontario Land Inventory Program was undertaken in the 1960s to provide an inventory of the land resources in the northern regions. One of the basic maps was a Land Classification map which was published at a scale of 1:250,000. These maps detailed different landscape and land units that were identified. The units were identified by the nature of the "brokenness" of the landscape and whether the unit was in a "lowland" or "plain" position, or whether it was in an "upland" position. The classification further incorporated estimations of the different soil materials and whether the

materials are mainly shallow and bare, shallow (with bare and some deep), deep and shallow (with some bare), and deep. The classification is detailed in Figure 6.1.1.

The information provided by the classification on the map was very limited in terms of what could be utilized in defining Prime Land Class and Subclass. However, each of the units defined on the map was supported by a more detailed description that was recorded in a "Land Unit Component Description Book". The data detailed on each land unit included: information on the area of the unit, the soils present, their petography, the depths in general classes of very shallow, shallow and deep, the moisture regimes associated with the soils, the percentage distribution within the unit, as well as information on the general component capability and a general timber use capability rating. Figure 6.1.2 presents an example of a data sheet for a land unit.

Figure 6.1.2

SITE REG ON 45		LAND UNIT NUMBER REG 40-1		AREA 53.2ha ² (20.54 sq mi)	
TEXTURE	PETROGRAPHY	DEPTH	MOISTURE REGIME	% of LAND UNIT	COMPONENT CAPABILITY
clay	moderate lime	deep	fresh	30	A
clay	moderate lime	deep	moist	25	B
clay	moderate lime	deep	wet	10	E
silty sand	very low base	shallow	dry	15	D
silty sand	very low base	very shallow	dry	10	F
organic material	very low base	deep	wet	5	G
bedrock	very low base	bare	dry	5	G

General timber use capability rating: 4 *

* See timber use capability for explanations.

Reference: A Guide To The Use Of Land Information
Ontario Institute of Pedology
O.I.P. Publication No. 79-2

Figure 6.1.1

A. LAND CLASSIFICATION TABLE

VERY WEAKLY BROKEN PLAINS		Section I
<i>Unconsolidated Material (ALL DEPTHS)</i>		
Peat and Muck	P	
Sand	1	
Loam	2	
Silt	3	
Clay	4	
All inorganic materials	5	

WEAKLY BROKEN PLAINS		Section II
<i>Consolidated Inorganic Material (BARE BEDROCK)</i>		
Weakly resistant limestone bedrock	6	
Weakly resistant argillaceous bedrock	7	
Weakly resistant sandstone bedrock	8	
Moderately resistant bedrock	9	
Strongly resistant bedrock	10	

<i>Unconsolidated Inorganic Material</i>				
	Bare and Shallow	Shallow and Deep	Deep and Shallow	Deep
	Shallow	some deep	with some bare	
Sand (coarse and medium)	11	21	31	41
Sand (fine and silty)	12	22	32	42
Sand (coarse to fine and silty)	13	23	33	43
Sand with other materials	14	24	34	44
Loam	15	25	35	45
Loam with other materials	16	26	36	46
Silt	17	27	37	47
Silt with other materials	18	28	38	48
Clay	19	29	39	49
Clay with other materials	20	30	40	50

MODERATELY BROKEN UPLANDS					Section III
<i>Unconsolidated Inorganic Material</i>					
	Bare and Shallow	Shallow and Deep	Deep and Shallow	Deep	
	Shallow	some deep	with some bare		
Sand (coarse and medium)	51	61	71	81	
Sand (fine and silty)	52	62	72	82	
Sand (coarse to fine and silty)	53	63	73	83	
Sand with other materials	54	64	74	84	
Loam	55	65	75	85	
Loam with other materials	56	66	76	86	
Silt	57	67	77	87	
Silt with other materials	58	68	78	88	
Clay	59	69	79	89	
Clay with other materials	60	70	80	90	

<i>Consolidated Inorganic Material (BARE BEDROCK)</i>					
Weakly resistant limestone bedrock					91
Weakly resistant argillaceous bedrock					92
Weakly resistant sandstone bedrock					93
Moderately resistant bedrock					94
Strongly resistant bedrock					95

STRONGLY BROKEN UPLANDS		Section IV
<i>Inorganic Material</i>		
All unconsolidated materials, deep		96
All unconsolidated materials, deep to bare bedrock		97
Bare bedrock and shallow unconsolidated materials		98

VERY STRONGLY BROKEN LAND		Section V
<i>Inorganic Material</i>		
All inorganic materials		99

B. HOW TO READ THE LAND CLASSIFICATION TABLE

- 1) On the maps with LAND UNITS AND LANDSCAPE UNITS, the land classification number comes BEFORE the dash. For instance: 10-40-1-40 is the land classification number.
- 2) Find the land classification number on the above table.
- 3) Read HORIZONTALLY to find the dominant soil texture or bedrock type of the land unit.
- 4) Read VERTICALLY to find the depth class of the land unit.
- 5) Read the DEGREE OF BROKENNESS of the land unit by noting into which section of the table the unit number falls.

Example: Land Classification No. 40
 Soil Texture - Clay with other materials
 Soil Depth Class - Deep and Shallow (with some bare)
 Degree of Brokenness - Weakly Broken Plains (Section II)

Reference: A Guide To The Use of Land Information
 Ontario Institute of Pedology
 O.I.P. Publication No. 79-2

Although the basis for the two mapping systems are different, they have both been approached through a photo-interpretative analysis. The Land Classification map has been based on the grouping of recurring landscape patterns which take into account the following physical features: degree of brokenness of the land, soil texture, soil depth and moisture regime. The NOEGTS map has defined specific landform features such as eskers, glacial outwash, morainal features, lacustrine sediments, bedrock controlled features, etc. It has also provided some estimation of the soil materials, the soil depth and the drainage conditions.

Neither classification system has provided a complete and sufficient data base which could be used in a direct sense to determine the Prime Land Class and Subclass. However, the two systems provide data which can be used in a "predictive" sense and through this can be compared.

In the process of comparison two questions were postulated. Firstly, in terms of the NOEGTS polygons that were randomly selected and tested in the field how well did the two mapping systems compare and how well do they reflect what was encountered in the field. The second addresses and compares the Prime Land Class and Subclass output derived from the conversion of the two mapping systems for each of the six maps and for the study area.

In order to establish a basis for comparison between the Ontario Land Inventory Land Classification System and the NOEGTS System, the descriptive elements within the Land Unit Description Book that supports the 1:250,000 scale land

classification maps had to be converted into the Prime Land Class and Subclass. The Description Book contained information on soil texture but in terminology which had to be interpreted into groups that were compatible with the Prime Land Key. The generalized depth class reported had to be assigned specific depth classes to fit the Key; further values had to be interpreted for the moisture regime classes. Where a range of conditions were given, a selection had to be made of the most appropriate.

The Land Unit Description Books were scanned to obtain a listing of the different elements and conditions that were recorded. In the case of the textural groupings, the following were found: coarse sand, medium sand, fine sand, silty sand, silty fine sand, fine silty sand, loam, silt, clay and peat and organic materials. For the interpretation into the Prime Land Key, the terms silty sand, silty fine sand and fine silty sand were classed into the sandy loam category.

The depth classes encountered included bare, very shallow, shallow, moderate and deep. For the conversion into the Prime Land Key, bare was assumed to be 3r, very shallow as less than 30 cm., i.e. 3vs, shallow as less than a meter, i.e. 2s, and the moderate and deep as being greater than one meter.

The moisture regimes were identified mainly as dry, fresh, moist and wet, although some Description Books showed transitional regimes ad dry-fresh. In the interpretation of these conditions the first regime indicated was used. The regimes were used to reflect the differing mottled conditions as indicated in the Prime Land Key. In the interpretation, the "moist" regime was identified with the poorly drained conditions and was assigned a 2p Prime Land Class and Subclass.

6.1.1 Comparison of the Prime Land Data for the Randomly Selected Polygons

An analysis was made of the randomly selected polygons from the NOEGTS mapping with the corresponding polygon and data derived from the Ontario Land Inventory Land Classification mapping with the site data derived from the field sampling program. This was accomplished by identifying the Land Classification unit that covered the selected NOEGTS map unit. In some cases the NOEGTS mapping unit crossed Land Classification boundaries. Where this occurred the data from both land classification units were examined.

A tabulation was made of each of the units and a comparison made of the Prime Land Class and Subclass. The NOEGTS Prime Land Class data was taken from the "predictive algorithm". The data from the Ontario Land Inventory Land Classification was analyzed and accorded a "predictive" Prime Land Class and Subclass on the basis of the dominant soil component detailed in the Land Unit Description Book on each of the Land Classification units. The soil site data was accorded a Prime Land Class and Subclass designation, based on the Prime Land Conversion Key.

The randomly selected polygons on each of the six maps with their predicted Prime Land Class and Subclass were compared with the predicted Prime Land Class and Subclass as represented by the Land Classification unit or units which encompassed the polygon. This provided a basis for assessing the degree of agreement or difference between the two mapping systems. The field sampling sites provided the ground truth characteristic in the comparison.

A subjective interpretation had to be made in the case where the Land Classification units extended beyond the NOEGTS

defined units. This was particularly true for the more strongly defined landform features on the NOEGTS map. However, on the less well defined landform features such as the bedrock, lacustrine and morainal landforms, the similarities were more directly comparable. A listing of the agreements and differences were recorded and analyzed.

The results of the comparison between the OLI Prime Land data and the NOEGTS Prime Land data is summarized in Table 6.1.1. It shows the number of disagreements in Prime Land Class designations and whether the disagreements were in terms of Class designation or Subclass designation for each of the map sheets. It also identifies the strata in which the disagreements occurred.

While the comparison was undertaken in a cursory fashion and not tested statistically, the results of the agreements and disagreements show that there is a good correlation and that the majority of the Prime Land designations agree. It was noted that where disagreements occurred the OLI Prime Land data appeared to represent more closely the conditions noted in the field. This of course raised the question, can the OLI mapping be used to provide a regional picture of Prime Land Class as well as the NOEGTS mapping and provide some area indication of the location of the prime lands.

As a result of these preliminary findings a request was made to extend the study program to investigate in more depth the capabilities of the OLI data base. The program was extended to analyze more critically the comparison of the OLI data and the NOEGTS data on the six map sheets and in particular the inclusion of the field sampling data into a comparative analysis.

Table 6.1.1.1

RANDOM POLYGON ANALYSIS
NOEGTS WITH OLI LAND CLASSIFICATION
AT PRIME LAND CLASS AND SUBCLASS LEVEL

Map Sheet	No. of Polygons Tested	No. of Differences At Prime Class 2 Classes	No. of Differences At Prime Class 1 Class	No. of Differences At Subclass Level	Strata in which Differences Occurred
Pakwash Lake	16	2	5	1	LP, MG, RP
Wabigoon Lake	18	-	2	5	MG, LB/RN, GK
Seine River	17	-	1	6	GK, RN, MG, MG/R
Marmion Lake	17	-	3	4	LP, RP
Heaven Lake	17	-	5	4	MG, LP, RN
Roslyn Lake	17	-	-	3	RN, GK/R, GO/R

6.1.2 Comparison of Prime Land Data Derived from Field
Data with the NOEGTS and OLI Attribute Information

To test the Prime Land data derived from the NOEGTS and the OLI mapping with the field data, an analysis was made of all the randomly selected polygons included in the NOEGTS test study. The data from the two mapping systems and the field sampling site data were compiled into a tabular matrix which reflected the "predictive" Prime Land Class and Subclass derived from the attribute data and the "observed" Prime Land Class and Subclass obtained from the field data.

The basis for the comparison or evaluation was the agreement and disagreement of the "observed" Prime Land data with the "predicted" Prime Land data. For the selected NOEGTS polygons the full attribute symbol was used and assigned a Prime Land Class and Subclass for each of the components. Similarly the detailed information on the different soils listed for the comparative unit in the Land Unit Description Book of the OLI mapping were also tabulated. The Prime Land Class and Subclass derived from the field data were compared with the "predictive" Prime Land Class and Subclass determined from the two mapping systems. A score was kept of the agreements and disagreements.

An agreement was scored when the "predictive" Prime Land Class and Subclass derived from the OLI and NOEGTS attribute data agreed with the field data. A disagreement was scored if the OLI or NOEGTS data did not predict what was observed from the field sampling. Although the number of field samples were restrictive in terms of the testing, the comparative evaluation did provide some insights and a basis for comparing the two mapping systems. No statistical testing could be done.

This was due to the limited sampling available and a possible bias or weighting by the field samples. The field sampling was designed to test the reliability of various strata in the NOEGTS mapping. Its use in this testing program can only be adapted in a comparative sense.

The listing and identification of the polygons, their attribute data and Prime Land Class and Subclass for the NOEGTS data, the field site data, the OLI descriptive information is summarized in Appendix "K". This lists the polygons by strata and by map sheet. A total of 98 polygons from the six NOEGTS maps were compared with the OLI data and the information derived from the 528 field sample sites.

Two tests of the data were carried out. The first was a comparison of the agreements and disagreements on a map sheet basis for the NOEGTS and OLI attribute data. The second was a similar comparison but on a "strata" basis. The results of the first test are shown in Table 6.1.2. The results of the second test are shown in Table 6.1.3.

Table 6.1.2 shows the number of agreements and disagreements between the "observed" Prime Land Class and Subclass derived from the field sample data with the "predicted" Prime Land Class and Subclass derived from the attribute data of the OLI and NOEGTS information systems. This is on a map sheet basis.

The distribution of agreements and disagreements shows that the OLI attribute data agree more frequently with the field data than did the NOEGTS attribute data. While the field sampling is limited and may be biased, the numbers do suggest a trend. The agreement extended over 5 of the 6 map sheets. Only one map sheet showed a reversal and even here the numbers were very close. Although there was considerable variation within map sheets over the whole study the OLI attribute data

had an agreement rate of 62 percent while the NOEGTS attribute data had an agreement rate of 45 percent.

Table 6.1.3 summarizes the data on a strata basis. The observed Prime Land Class and Subclass from the field data is in agreement with the Prime Land Class and Subclass predicted by the OLI data more frequently in eight of the strata defined by the NOEGTS mapping. In one strata the agreements were the same. For the NOEGTS strata, which proved to be less reliable at predicting Prime Land Class, the OLI data more frequently predicted the conditions found by the field sampling. Two strata, ME,MH and LP were in agreement less than 50 percent of the time for the OLI AND NOEGTS data. The reason for this is not clear but could be due to the limited distribution of these two strata and the interpretation placed on the conversion of the OLI attribute data. Using the NOEGTS assessment six strata, ME,MH; MG; LP; RN,RR; X/R, and RL,RP were in agreement less than 50 percent of the time.

The comparative analysis in these two tests of the OLI and NOEGTS attribute data indicates that the OLI tends to be more in agreement with the observed field conditions than the NOEGTS. Although no statistical analysis could be conducted, the data reflects trends which suggests that the OLI attribute data is better at predicting Prime Land Class and Subclass than the NOEGTS attribute data. The OLI data appears to be more "sensitive" to Prime Land Class and Subclass determinations and perhaps more reliable.

The reason for this is undoubtedly due to the fact that the OLI attribute data files contain more specific information with respect to the distribution of different soil characteristics and that the soil characteristics are better defined in terms of soil depths and to drainage or moisture regime

TABLE 6.1.2

Summary of the Agreements and Disagreements
of the OLI and NOEGTS Prime Land Data by Map Sheet

<u>Map Sheet</u>	<u>OLI Land Classification</u>		<u>NOEGTS</u>	
	<u>Agree</u>	<u>Disagree</u>	<u>Agree</u>	<u>Disagree</u>
Wagagoon L.	52	49	54	47
Pakwash L.	68	24	34	58
Seine R.	48	40	41	47
Marmion L.	50	36	37	49
Heaven L.	44	36	27	53
Roslyn L.	67	14	45	36
Total	329	199	238	290
Percent	62	38	45	55

TABLE 6.1.3

Summary of the Agreements and Disagreements
of the OLI and NOEGTS Prime Land Data by Strata

<u>Strata</u>	<u>OLI Land Classification</u>		<u>NOEGTS</u>	
	<u>Agree</u>	<u>Disagree</u>	<u>Agree</u>	<u>Disagree</u>
ME, MH	26	28	24	30
GE, GK	32	27	32	27
GO, GD, LB, LD	52	26	46	32
OT	45	5	31	19
MG	37	17	26	28
LP	22	29	20	31
RN, RR	47	27	35	39
X/R	29	26	8	47
RL, RP	39	14	16	37
Total	329	199	238	290

conditions. Further, it is understood that a greater amount of field checking was done of the OLI data base than was accorded the NOEGTS mapping program.

The fact remains that the NOEGTS maps may appear more acceptable due to the fact that they are at 1:100,000 scale and comprise a greater number of separations. They do however lack definition in terms indicating the distribution of the dominant and sub-dominant components of the attribute data. On the other hand, the OLI mapping is at a scale of 1:250,000, has fewer polygons which appear to have a less intense separation of the landscape. However, the Land Unit Description Book does provide a detailed assessment of the Land Unit and an areal distribution of the component elements. The number of attributes usually recorded for each Land Unit ranges from 5 to 9 separations. An average is seven.

Table 6.1.4 shows the relationship between the number of polygons on the OLI and the NOEGTS for the six map sheets that were included in the study.

TABLE 6.1.4

Distribution and Ratio of Polygons
Between the NOEGTS and OLI mapping

<u>Map Sheet</u>	<u>NOEGTS No. Polygons</u>	<u>OLI No. Polygons</u>	<u>Ratio in Polygons</u>
Pakwash L.	891	59	1:15
Wabigoon L.	331	105	1:3
Seine R.	257	70	1:3
Marmion L.	394	59	1:7
Heaven L.	350	48	1:7
Roslyn L.	356	42	1:8
Average	430	64	1:7

Based on the information in Table 6.1.4 the average ratio of the polygons between the OLI and NOEGTS maps is 1:7. However, the Pakwash sheet weights this ratio unduly. Based on the other five map sheets the average ratio would be 1:5. Based on the fact that there are on the average 6 to 7 specific attribute elements for each OLI Land Unit results in the definition capable from the OLI mapping to approximate the NOEGTS mapping.

6.1.3 Comparison of the Distribution of Prime Land Class and Subclass

An analysis was made of the component information on each land unit detailed in the Land Unit Description Book. This was expressed in terms of its Prime Land Class and Subclass and based on the percentages given, the various classes and subclasses were used to calculate area. These values were compiled in a tabular matrix. The area covered by the NOEGTS 1:100,000 scale map sheet (a quadrant of the 1:250,000 scale Land Classification map) was blocked out on the Land Classification map. All the units within the blocked area were listed from the Land Classification map. Those areas which fell over the boundary were measured and the area figures adjusted to reflect this. The values for each of the land class units were summed and the percentage distribution of the various Prime Land Class and Subclass were compared with the area distribution derived from the Conversion Algorithm of the NOEGTS map. This data was then analyzed.

Initially only one map sheet was analyzed. Because the results were interesting, a second map sheet was done for comparison. The Prime Land Class and Subclass derived from

a calculation of the OLI attribute data file was compared with the NOEGTS data derived from the computer generated area files of the digitized NOEGTS mapping (Section 4.2). The comparison of the data between the two systems showed some interesting similarities and that this approach should be explored further and extended over the six map sheets in the study.

A request was made to extend this investigative route over the other four map sheets. Therefore, the OLI Land Classification data on the other map sheets were calculated and compiled. The OLI area data is detailed in Appendix "M". A summary of the percentage of the different Prime Land Classes and Subclasses for the similar OLI and NOEGTS mapping area is presented in Table 6.1.5.

An examination of the data in Table 6.1.5 shows that for some of the Prime Land Classes and Subclasses the data derived from the two mapping systems approximate one another. In others there is considerable difference. When viewed in the context of the six map sheets the averages, particularly of the Prime Land groups, show a marked similarity. Since the OLI data has not been tested for reliability it cannot be stated which of the two data are more correct. However, based on the analysis done in Section 6.1.1 it appears that the OLI attribute data may present a more reliable approximation of the Prime Land Class and Subclass. The OLI data appears to present a higher estimate of Prime 1 class lands and a lower percentage of Prime 3 class lands. There is very close approximation of the Prime 2 class lands.

It should be noted that the OLI attribute data information is not without some errors. In assembling the area data for the OLI map sheets it was found that the summated areas of the

Table 6.1.5 COMPARATIVE ANALYSIS OF NOEGTS AND OLI PRIME LAND CLASS/SUBCLASS AREA DATA

Map Sheet Prime Land Class/Subclass	Pakwash L.			Wabigoon L.			Seine R.			Marmion L.			Heaven L.			Roslyn L.			Study Area		
	NOEGTS	OLI	%	NOEGTS	OLI	%	NOEGTS	OLI	%	NOEGTS	OLI	%	NOEGTS	OLI	%	NOEGTS	OLI	%	NOEGTS	OLI	%
3r	2.0	1.3		.4	6.3		T	5.8		52.0	11.6		.1	.9		.9	17.9		9.23	7.30	
3o	8.1	6.0		7.5	6.4		14.9	9.5		3.9	5.9		13.6	9.0		2.8	5.4		8.46	7.30	
3vs	19.9	4.2		1.7	9.5		1.8	11.4		27.8	11.1		17.1	3.3		42.8	29.2		18.53	11.45	
Subtotal 3	30.0	11.5		9.6	22.2		16.7	26.7		83.7	28.6		30.8	13.2		46.6	52.5		36.22	25.78	
2sm	23.5	T		-	-		.1	.4		.1	4.7		10.3	1.7		12.8	4.3		7.80	1.85	
2ss	15.9	17.1		19.6	1.9		37.1	.3		4.9	19.2		25.0	28.5		1.3	16.3		17.30	15.55	
2sf	.8	8.9		21.9	17.6		25.7	48.2		.5	18.3		-	6.0		-	-		8.15	16.50	
Subtotal 2s	40.2	26.0		41.5	19.5		62.9	48.9		5.5	52.2		35.3	36.2		14.1	20.6		33.25	33.90	
2p	1.5	18.9		1.4	14.7		-	12.6		4.3	4.0		5.2	13.9		.6	3.2		2.16	11.21	
2d	22.0	18.6		18.7	17.7		16.1	5.1		5.8	11.8		23.6	28.2		35.4	17.4		20.26	16.46	
2i	2.3	T		.2	-		1.6	.1		.1	T		3.5	2.2		2.7	5.2		1.73	1.25	
Subtotal 2	25.8	37.5		20.3	32.4		17.7	17.8		10.2	15.8		32.3	44.3		38.7	25.8		24.15	28.92	
1c	3.5	.7		-	4.0		1.1	.8		.1	3.0		1.2	6.3		.2	.7		1.01	2.58	
1f	-	24.3		28.2	21.7		1.3	5.6		.1	T		-	-		-	.2		4.93	8.63	
Subtotal 1	3.5	25.0		28.2	25.7		2.4	6.4		.2	3.0		1.2	6.3		.2	.9		5.94	11.21	

parts exceeded the total area of the map sheet. On checking some of the polygons it was found that area data was incorrect. In some instances it was a misplaced decimal point, in others the measurement was obviously incorrect. This problem is not too serious as it would be corrected in a map digitizing program. More important is the reliability of the attribute data and the estimates of percent distribution.

No reliability tests could be made of the attribute data and the area distribution of the soil elements other than was indicated by the trends demonstrated in the polygon comparative analysis. To determine the accuracy and the reliability of the OLI attribute data would require a similar in-depth assessment as was carried out for the NOEGTS mapping.

We believe, however, based on the comparative analysis and the trends that were determined, plus the fact that the OLI mapping had a greater input of field checking, that the attribute data and area assessment of the elements is reasonably sound, at least to make a first approximation of the Prime Land area.

6.2 Aerial Photograph Comparative Assessment

As detailed in the terms of reference, studies would be undertaken into a comparative analysis of the information shown on the NOEGTS maps with a photo-interpretative assessment utilizing the 1:50,000 scale photography that was reported to be available for the study area. Unfortunately the 1:50,000 imagery did not extend over the entire study area. It was not available for the Pakwash map sheet. Further, the imagery could not be made available for the field sampling program due to the fact that the Photo Laboratory in the Ministry of Natural Resources was not functioning during a period when it was being transferred to a new location.

It was not the intent of the comparative analysis to provide an in-depth and critical review of the interpretation, but was done to determine whether based on field observations and assessing these in relationship to the NOEGTS mapping there was a general agreement or if some improvements could be expected. It must be remembered that the photo-interpretation for the NOEGTS mapping was done with imagery of different ages and scales and without much field work or field photo correlation.

The assessment provided a better appreciation of the identification, classification and mapping that was done under the NOEGTS program and how well the various landform strata were classified and mapped, and whether there was any further refinement possible. It was noted that for those strata such as End Moraine, Glacial Outwash, Kame Moraines and Organic Terrain, which scored well in the agreement of the conversion, were generally identified, classified and mapped well. Some differences were always possible with respect to the positioning of a line or the inclusion of an area; this was to be expected. Unfortunately the NOEGTS map sheet that had the greatest number of classification differences did not have 1:50,000 scale imagery available.

It is recognized that quality control in the photo-interpretative process is difficult, particularly if the interpretation is being carried out by interpreters of different backgrounds and levels of experience. In comparing the mapping on the different map sheets in relation to the various groups that performed the interpretation there appears to be a lack of co-ordination between the groups to establish some basic conventions with respect to the symbology and cartographic presentation of the data.

Based on the limited comparative testing, it was felt that a better definition could have been made of the drainage characteristics associated with the lacustrine plain landform and with the depth element for the bedrock and ground moraine landforms. Although it was possible to recognize drainage differences it was not always possible to separate or map them at the 1:100,000 scale.

The greatest difficulty in mapping is associated with the bedrock controlled and ground moraine landforms utilized by the NOEGTS mapping. Some refinement is possible to distinguish broader areas where the "drift" is appreciably thicker it is known that the depth of the "mantle" can vary within very short distances. Also, there is a lack of good landform characteristics associated with ground moraine and bedrock controlled landscapes. The terminology to define bedrock landscapes is less well documented and studied when compared to the glaciofluvial, glaciolacustrine and other glacial and fluvial landforms.

The bedrock landscapes are better definable at a broader land unit or landscape level and in terms which reflect the "brokenness" of the terrain, the amplitude of the crest to base relief, the percentage of exposed bedrock and the estimation of the depth and nature of the overlying materials. The form or shape of the bedrock terrain is controlled by the nature of the underlying rock, its structure or tectonics and the surficial forces of ice and water movements.

It is noted in the photo-interpretative process that with the vegetative cover that persists it is difficult to get an impression of the micro-topography and features which can help to determine the landform. Further, due to the disturbances in the vegetation as a result of fires, cutovers, differences in regeneration and the various ages of the vegetation it is

difficult to use vegetation as a good indicator other than in the broadest context. There can be no doubt that to establish good photo-interpretative models, considerable field work is necessary to establish a good confidence level through field-photo correlations by the individual interpreters.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on the investigations that were carried out and the results achieved. They include some discussion with respect to the conclusions reached, the interpretations that were made, and some observations with respect to the approaches utilized.

7.1 NOEGTS Mapping

The results of the accuracy and reliability testing of the conversion of NOEGTS map data into Prime Land Class and Subclass data indicated that there is considerable variability in the conversion of certain landform strata. Further, the results indicate that there is considerable variability in the accuracy and reliability between map sheets that were selected for the study. The results indicate that for the six map sheets selected there was a low level of reliability to predict accurately the Prime Land Class and Subclass and that an average of only 24 percent of the mapped area could be assumed accurately identified at an 80 percent level of confidence.

Four landform strata were reliably identified and classified. These, however, normally constituted a small proportion of the map sheets. At the lower end of the scale the Marmion map sheet had less than 10 percent of its area well classified. On the other hand, Roslyn Lake had 40 percent well classified.

Basic to the evaluation it must be recognized that the NOEGTS maps were not designed for Prime Land identification. They are an engineering geological terrain assessment which was designed for engineering interpretation with respect to the identification of sources of aggregate materials and terrains

that offered the greatest constraints to engineering use. Further, the NOEGTS are fraught with errors and inconsistencies in terms of their cartographic presentation. This makes them difficult to use in a confident manner and within a computer-oriented mapping data handling framework. Omissions such as unlabelled areas, incomplete boundaries, poor or incorrect ties between adjoining map sheets as well as map units represented by a number of differing symbols, add to the confusion and reduce confidence in the map data.

In terms of developing a conversion algorithm, difficulties were experienced due to the data in the map symbology often being incomplete or of a nature that made it difficult to apply the appropriate interpretation. Further, symbology between the six map sheets was not always consistent. The major problem was with the interpretation of the drainage groups, particularly the use of a "mixed" group which indicated both dry and wet conditions but was not identifiable with a specific landform group. Another problem occurred in trying to apply a consistent interpretation to assumed or perceived depth classes. The NOEGTS mapping indicates the use of "/" to signify stratification as well as imply a shallowness.

The statistical analysis of the NOEGTS mapping followed the approaches defined in, "A Procedure for Determining Ground Truth Reliability for Land Resource Inventories" (Moon, Hall (1986)). Some modifications and adaptations were made particularly in the random selection of polygons in order to ensure the different landform strata being adequately represented and the distribution within the six map sheet study area being balanced. Some minor adjustment had to be done in the field

when it was found that polygons selected and deemed accessible from the NOEGTS mapping in fact were not. Different methods of selecting sampling sites were evaluated, resulting in the adaptation of a modified approach which was pragmatic and maintained randomness. These modifications we believe do not diminish the statistical validity of the results.

The study successfully developed an algorithm that would convert the NOEGTS attribute data into Prime Land Class and Subclass. It also developed an algorithm which would convert the field soil/site data into Prime Land Class and Subclass data. The basic element of the analysis was the testing of the comparative Prime Land data derived from the NOEGTS attribute information with the Prime Land data derived from the field information. The agreement and disagreement of the observations were utilized in the determination and the accuracy and reliability of the "predicted" versus the "observed" at different levels of significance. Two tests were undertaken, namely: the assessment of standard differences and the CHI^2 dispersion test to determine significant difference of the 80, 70 and 60 percent level of accuracy, and the CHI^2 2 x 2 contingency table for the determination of significant error rate difference between strata.

The results of the study and the analysis showed that certain of the landform strata being tested could be predicted in terms of Prime Land Class accurately and reliably, while other landform strata used in the NOEGTS mapping could not. Further, based on the information derived on accuracy and reliability, an assessment could be made of the percentage of the map sheets that were reliably identified and classified. Neither the analysis nor the study tested the accuracy of the boundary delineations of the polygons. Three Reliability Classes were

utilized to assess the mapping. These relative classes were defined as those strata that were predicted (in terms of accuracy) could meet an 80 percent level or better, those that lie between 60 and 80 percent level, and those that are less than the 60 percent level.

Through the testing of the strata it was determined that strata such as end moraine, deltaic outwash, kame moraine and organic terrain were reliably identified and accurately characterized in terms of their Prime Land Class. The ground moraine, lacustrine and some of the rock-controlled landforms or strata were not as reliably identified and characterized in terms of their Prime Land Class on the NOEGTS maps. This was due to the fact that the drainage classes and depth categories interpreted from the NOEGTS attribute data could not be defined or determined precisely enough. The bedrock controlled strata defined for the study represented by x/R is not really a landform by itself but a phase of the other landforms or strata. It did not correlate very well because of the interpretation placed on the depth class and the influence of texture and drainage.

The strata grouping of Rock Plateau and Rock Plain reflected poorly in the testing. This appears to be more a result of incorrect mapping where these strata had been used to represent one of the other landform strata. It was not always possible to determine from the analysis if the error was due to the weakness in the conversion of the NOEGTS algorithm, mistyping of the map polygon, or errors in the cartographic presentation.

The application of the analysis of reliability and accuracy to the individual map sheets produced a range of conditions where the overall reliability indicated that only 8 percent of that

map sheet could be reliably predicted in terms of Prime Land Class. Another map sheet had nearly 40 percent of the area accurately and reliably predicted. Results indicate that the average for the six map sheets in the test was only 24 percent. This area represents those strata which could be predicted at the 80 percent level of confidence.

At a reduced level of confidence, i.e. those strata which were predicted at less than the 80 percent level of confidence, 69 percent of the land area of the map sheet would be classified with a lower degree of reliability. However this is only compromising the utility of the NOEGTS mapping in predicting Prime Land Class and providing the necessary step in the Prime Land identification strategy.

Based on the results of the analysis carried out on the sampling, the conclusion reached is that the NOEGTS mapping as it now stands is unacceptable for the determination of Prime Lands. To improve the reliability of the NOEGTS data and mapping, considerable input would be required to upgrade them. This will require a reinterpretation and classification of the poorly defined strata. It will require an improvement in definition of the rock-controlled landforms and their mapping; better estimation on soil depth and definition and mapping of drainage classes, as well as a more consistent determination and mapping of the soil material categories. It will require considerable field work to develop and establish a good photo-interpretation field correlation and model. It will require that mapping and cartographic standards be adopted and monitored.

7.2 Ontario Land Inventory OLI

The investigations into the Ontario Land Inventory Land Classification mapping and the data within the Land Unit Description File prompted a comparative evaluation of the Prime Land data derived from this system with the data derived from the NOEGTS polygon testing and field data. It was found that the Prime Land data from the OLI system correlated in many instances with the NOEGTS and field information. Further, where the NOEGTS and the field data differed, the OLI data appeared to correlate better with the field observations.

Following some preliminary findings and based on a request to analyze the OLI data further, the project was extended. In a more detailed comparative assessment of the randomly selected polygons of the NOEGTS and field sample data with the comparable polygon from the OLI mapping and the attribute data included in the Land Unit Description Book it was found that for the polygons and strata tested the field data was in more frequent agreement with the Prime Land Class and Subclass predicted by the OLI data. Although there were differences between the map sheets, the trend existed on five of the six map sheets tested. In terms of an overall study assessment of the six map sheets, the OLI attribute data had an agreement rate of 62 percent while the NOEGTS attribute data had an agreement rate of only 45 percent.

On a strata basis it was observed that the Prime Land Class and Subclass derived from the field data was in agreement with the Prime Land Class predicted by the OLI data more frequently in eight of the strata as defined by the NOEGTS mapping. While no statistical analysis could be done, the trends indicated by the comparative studies suggests that the OLI attribute data can predict more consistently the Prime Land Class and Subclass.

The reason for this lies in the fact that the OLI attribute data files contain more specific information on the distribution of the different soil characteristics and that the soil characteristics are better defined in terms of soil depth, and drainage or moisture regime conditions than the NOEGTS attribute data. It is known that considerably more field work and map checking was done for the OLI mapping program than was accorded the NOEGTS mapping study. Further the OLI mapping system is a biophysical approach and was designed and utilized in several land evaluation programs such as the Timber Capability assessment, the Wildlife and Recreational land assessments.

The comparison of the OLI and NOEGTS mapping and attribute data on an area and map sheet basis provided some interesting insights. Although the differences between map sheets showed considerable variation in area values of Prime Land Class and Subclass, the Prime Land Class percentage values had similarities for the Class 2 category. The data reflects opposing positions in the Prime Land Class 1 and 3 categories.

Within some of the map sheets there appeared to be some similarities for some of the Subclass levels. In comparing the most reliably mapped map sheet as defined by the reliability class assessment, the area values from the two systems approximate one another. On the least reliably mapped map sheet the values had the greatest divergence. While this analysis does not provide any concrete results, it does provide some further credence to the fact that the OLI attribute data appears to predict the Prime Land Class and Subclass across the various map sheets in a more consistent manner. It further suggests that the area distribution data derived from the OLI may be a closer and a more reliable approximation of Prime Land Class and Subclass.

The OLI mapping and land unit attribute data file can be used to predict Prime Land Class and Subclass. However, because the OLI mapping is at 1:250,000 scale and is based on a broader land type mapping framework, it is not sensitive in terms of the specific location of the soils and landform elements. Never the less it can assist in the reduction of the vast area in the Northwestern and North Central Regions to a more manageable framework and provide the identification of areas that have the highest Prime Land indications. As a first approximation it has the ability to provide regional, district and management unit characteristics for the area of its coverage. It can be brought into a computerized electronic data base at a considerably lower cost than would be required to incorporate the NOEGTS maps. There are approximately 16 OLI map sheets covering the same area as the 50 NOEGTS map sheets.

7.3 Future Direction

The alternatives, suggestions and recommendations developed by this study are presented for consideration in the development of the ongoing program of studies and work that must be done to meet the objectives of the Prime Land Strategy. They have been developed in part from the results of the specific studies that were carried out but as well from other sources of information. They are also based on our long term experience and involvement in resource base inventories and assessment of resource capabilities.

The test results of the accuracy and reliability studies of the NOEGTS mapping and attribute data to predict Prime Land Class and Subclass suggests that this source of information should not be utilized for the first approximation of Prime Land, at least in the present state. The Ontario Land Inventory Land Classification mapping and the attribute data from the Land Unit Description Book offers as good or better an alternative

in the approximation of the Prime Land Class and Subclass. We believe the OLI data to be more consistent and reliably compiled than the NOEGTS data and thus can provide an adequate and appropriate expression of Prime Land distribution at both the Regional and District level and potentially even the Management Unit level. At the District and Management Unit levels it can only provide an "overview" assessment of the Prime Land capabilities and an approximation of the location of the different Prime Land types. We believe it can provide the direction for determining where more detailed Prime Land mapping is required. It must be stressed that the level of data generated from the OLI system is not suitable or adequate enough to assist in evaluating and assisting in directing silvacultural management practices and replanting programs in the field. This is also true for the data that would be generated from the NOEGTS mapping.

From our analysis the following principal options or alternatives exist to meet the main objectives of the Prime Land Strategy.

Option 1

Utilize the OLI Land Classification base and the information detailed in the Land Unit Description Book to provide a first approximation of the distribution and area estimate of the Prime Land Class and Subclass in the Northwestern and North Central Regions. We believe it is desirable to utilize this resource information base more fully despite its limitations and imperfections. It can be used to identify Prime Land Class and Subclass and can be brought into a computerized mapping and data storage system at the least cost. It can provide regional assessment of areas of Prime Land Class and Subclass and can identify the main areas of extensive Prime

Land resources. There are only 16 map sheets covering the same area as the NOEGTS mapping. Although some problems exist in the ease at which the 1:250,000 scale base can be digitized and that some "cleansing" of the OLI polygon data will be required particularly in areas where the existing boundaries cross water bodies. The Prime Land data generated should be adequate to obtain a first approximation of the Regional and District prime land resources.

Option 2

Utilize the NOEGTS mapping realizing its imperfection in predicting Prime Land Class and Subclass and to predict to an acceptable level of accuracy on the average only 24 percent of the map sheet. Further recognizing that only four strata are reliably classified and that these do not represent the most Prime Lands but lands that are mainly 2d and 3o. To utilize these maps will require considerable input to "cleanse" the data in order to make it suitable and acceptable to a computerized mapping input. There are approximately 50 map sheets of this series available for the Northwestern and North Central Regions. It will cost considerably more to digitize and computerize the 1:100,000 scale information on these maps than for the comparable area on the 1:250,000 scale maps. We believe that while it may define some of the Prime Land Class and Subclass areas better, the overall results will not be appreciably better than the approximation derived from the OLI data base.

We believe that the NOEGTS data can be better utilized at a second approximation level in evaluation those areas that have been identified and highlighted by the OLI resource base assessment. Further that the NOEGTS information be combined with additional photo-interpretation and field checking to upgrade and improve the reliability of the NOEGTS mapping.

Option 3

A third option is to reject both the OLI and the NOEGTS information bases because of their inherent weakness and undertake a completely new assessment of the land resources designed specifically to meet the requirement for Prime Land determination. While this alternative has the potential for eliminating the weakness and problems faced in utilizing the OLI and NOEGTS mapping it would be too costly and time consuming to meet the Prime Land Strategy mandate. Further, it would be a major undertaking and would require considerable input in the resolution of appropriate classification system, scales accuracy levels, etc.

We do not believe this option justifiable. We believe the area of Prime Land can be determined on the basis of existing information systems and that any effort into new surveys should be done of the selected areas within Districts and Management units and at levels which can serve and assist the District or Management Unit forester in the application of appropriate silvacultural management practices.

Preferred Program for Prime Land Determination

The following is our preferred program in the development of a computerized mapping program for the determination and assessment of Prime Lands. While we recommend in the first instance the use of the OLI information base we are reluctant to commit the program to the digitizing of the 1:250,000 base information. We believe that the 1:100,000 base has more utility at the regional level for the incorporation of other mapping and data systems. It is more accurate and more easily inputted into a computer mapping system. Further we are suggesting the possible integration of the NOEGTS information at a later stage. Rather

than produce two computerized base systems we are recommending that the OLI polygon information be compiled at 1:100,000 scale as well as the information on regional boundaries, District boundaries and Management Units.

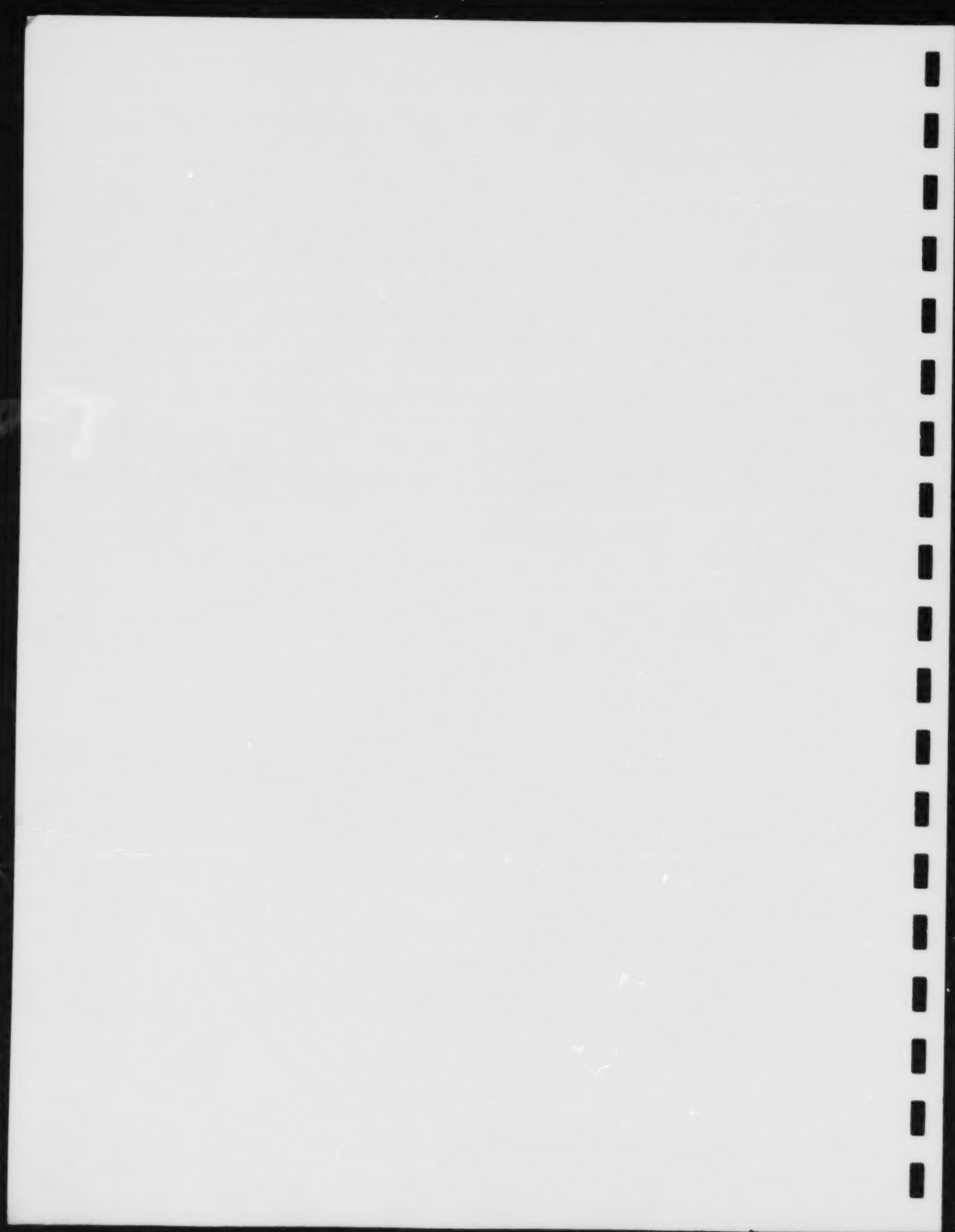
Utilizing the most up to date base, establish a program for the digitizing and computer input of the 1:100,000 base. We recommend that a complete base be compiled so as to have utility to other users.

Enlarge the 1:250,000 scale OLI land classification mapping to 1:100,000 and in digitizing fit it to the 1:100,000 base making the necessary adjustments to the polygon boundaries at the water contact. Number the polygons and digitize this information with the Regional, District and Management Unit boundaries.

Encode the attribute data on each land unit from the Land Unit Description Book. Combine the attribute information with the polygon number and area files. Develop a Prime Land Conversion algorithm which will convert the attribute information into Prime Land Class and Subclass. Develop a program to convert the percent distribution values with the polygon area data into area data of different Prime Land Class and Subclass.

Develop computerized output maps and generate Prime Land Class and Subclass reports for map sheets, regions, districts and management units.

APPENDIX "A"



er. K_PRO

-at

APPENDIX "A"

>PROGRAMS>KIRK>THUNDER>STRATA.F77 (This Program is Prime Dependent)


```
W      WWW  WWW  WWW
W  W  W  W  W  W
W  W  W  W  W  W
WWW  WWW  W  W
W  W  W  W  W
W  W  W  W  W
W  WWW  W  W  W  WWW
```

```
WWWWW  WWW  WWW  WWW  WWW  WWW  WWW  WWW  WWW  WWW
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  WWW  WWW  W  WWW  WWW  WWW  W  W  W  W  W  W
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
```


Spooler rev 20.0.1 (c) Prime Computer, Inc., 1985]

1: PRT030 -form

thname: <ESRI>PROGRAMS>KIRK>THUNDER>STRATA.F77

last modified: 87-11-25. 16:10:44. Wed

ooled: 87-12-07. 14:16:24. Mon

ted: 87-12-07. 14:16:28. Mon on: AMLC by: PRO

PROGRAM STRATA

Purpose :

The purpose of this program is to open a file and determine the strata classification of each landform in the file. The format for the input file is (10X,I4,3X,A14) where the two items are POLYNO and LANDFORM. The output file has the format (I4,A14,I4) where the three items are POLYNO, LANDFORM and STRATA.

History :

Kirk Haines --- Northway Map Technology --- 25/11/85

```
INTEGER IERR, INNUM, OUTNUM, STRAT
CHARACTER*80 MSG, LINE
CHARACTER LAND*14, POLYNO*4, STNG1*6, STNG2*6

CHARACTER*128 INFILE, OUTFIL
INTEGER*2 IER, INP1(3), INP2(3), IOU(65)
INTEGER*2 LEN1, LEN2, IINF(65)
LOGICAL GEXIST

EQUIVALENCE (INP1(1), STNG1), (INP2(1), STNG2)
EQUIVALENCE (INFILE, IINF(2)), (OUTFIL, IOU(2))

DATA STNG1/' ' . INF'/', STNG2/' ' . OUT'/'

INP1(1) = 4
INP2(1) = 4
LEN1 = 132
LEN2 = 132
OUTFIL = ' '
INFILE = ' '
```

get parameters from CPL

```
CALL QV$GET(INP1, IINF, LEN1, IER)
CALL QV$GET(INP2, IOU, LEN2, IER)
```

check proper command usage

```
IF (IOU(1).EQ.0) THEN
  MSG = 'Usage : STRATA <infile> <outfile>'
  CALL ERROR(MSG, LENCHR(MSG))
ENDIF
```

check existance and open input file

APPENDIX "B"



```

INQUIRE(FILE=INFILE,EXIST=GEXIST)
IF (.NOT.GEXIST) THEN
  MSG = ' Input file does not exist. (STRATA)'
  CALL FATAL(MSG,LENCHR(MSG))
ENDIF

```

```

CALL AOPEN(INNUM,INFILE,IERR)
IF (IERR.NE.0) THEN
  MSG = ' Cannot open input file. (STRATA)'
  CALL FATAL(MSG,LENCHR(MSG))
ENDIF

```

check existence and open output file

```

INQUIRE(FILE=OUTFIL,EXIST=GEXIST)
IF (GEXIST) THEN
  MSG = ' Output file already exists. (STRATA)'
  CALL FATAL(MSG,LENCHR(MSG))
ENDIF

```

```

CALL ACREAT(OUTNUM,OUTFIL,IERR)
IF (IERR.NE.0) THEN
  MSG = ' Cannot create output file. (STRATA)'
  CALL FATAL(MSG,LENCHR(MSG))
ENDIF

```

read and classify records in input file

```

100 FORMAT(11X,A4,2X,A14)
200 FORMAT(A4,A14,I4)
1 100 CONTINUE
  READ(INNUM,100,END=9000,IOSTAT=IERR) POLYNO, LAND
  IF (IERR.NE.0) THEN
    MSG = ' Error reading from input file. (STRATA)'
    CALL FATAL(MSG,LENCHR(MSG))
  ENDIF

```

nd strata

```

  STRAT = 0
  DO 2000 I = 1, LENCHR(LAND)
    IF (LAND(I:I).EQ. '(') THEN
      GOTO 8000
    ELSE IF ((LAND(I:I+1).EQ. 'ME' .OR. LAND(I:I+1).EQ. 'MH') .AND.
+      STRAT.EQ.0) THEN
      STRAT = 1
    ELSE IF (LAND(I:I+1).EQ. 'MC' .AND. STRAT.EQ.0) THEN
      STRAT = 2
    ELSE IF ((LAND(I:I+1).EQ. 'CE' .OR. LAND(I:I+1).EQ. 'CK') .AND.
+      STRAT.EQ.0) THEN
      STRAT = 3

```

```
ELSE IF ((LAND(I:I+1).EQ. 'GD' .OR. LAND(I:I+1).EQ. 'GD' .OR.  
+ LAND(I:I+1).EQ. 'LB' .OR. LAND(I:I+1).EQ. 'LD')) .AND.  
+ STRAT.EQ.0) THEN  
    STRAT = 4  
ELSE IF (LAND(I:I+1).EQ. 'LP' .AND. STRAT.EQ.0) THEN  
    STRAT = 5  
ELSE IF (LAND(I:I+1).EQ. 'OT' .AND. STRAT.EQ.0) THEN  
    STRAT = 6  
ELSE IF ((LAND(I:I+1).EQ. 'RL' .OR. LAND(I:I+1).EQ. 'RP')) .AND.  
+ STRAT.EQ.0) THEN  
    STRAT = 7  
ELSE IF ((LAND(I:I+1).EQ. 'RN' .OR. LAND(I:I+1).EQ. 'RR')) .AND.  
+ STRAT.EQ.0) THEN  
    STRAT = 8  
ELSE IF (LAND(I:I+1).EQ. '/R') THEN  
    STRAT = 9  
    GOTO 8000  
ELSE IF (LAND(I:I+1).EQ. 'AP') THEN  
    STRAT = 10  
    GOTO 8000  
ENDIF  
OO CONTINUE  
  
write classified data to file  
  
OO CONTINUE  
    WRITE(OUTNUM,200) POLYNO, LAND, STRAT  
    GOTO 1000  
  
done  
  
OO CONTINUE  
    CALL ACLOSE(INNUM)  
    CALL ACLOSE(OUTNUM)  
  
    CALL EXIT  
    END
```

set: K_PRO

-at

APPENDIX "B"

ESRI>PROGRAMS>KIRK>THUNDER>CLASSIFY.FOR (This Program is PC Dependent)

W WWW WWW WWW
W W W W W W
W W W W W W
WWW WWW W W
W W W W W
W W W W W
W W W W W
W WWWW W W W WWW

W WWW WWW WWW WWW WWWWW W W WWWWW WWW WWW
W W W W W W W W W W W W W W W W
W W W W W W W W W W W W W W W
W WWWWW WWW WWW WWW WWWWW W W WWWWW
W W W W W W W W W W W W W W W
W W W W W W W W W W W W W W W
WWW WWWWW W W WWW WWW WWW W W WW W WWW W W

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1: PRT031 -form

athname: <ESRI>PROGRAMS>KIRK>THUNDER>CLASSIFY.FOR
e last modified: 87-12-07.14:19:00.Mon

ooled: 87-12-07.14:21:08.Mon
ted: 87-12-07.14:20:16.Mon on: AMLC by: PRO

PROGRAM CLASSIFY

Purpose :

The purpose of this program is to classify soil samples into the proper Prime Land Inventory classification.

History :

Kirk Haines --- Northway Map Technology --- 23/11/87

```
CHARACTER*80 MSG, INFIL, OUTFIL, CMDLIN
CHARACTER FILL1*14, FILL2*11, FILL3*9
CHARACTER FILL4*10, FILL5*32, SUB*2
CHARACTER*6 LYRT(3), LT
INTEGER DOM, DDM, DBR, EBR, LYR1, LYR2, LYR3, PRM, LAY
LOGICAL QEXIST, QERR

100 FORMAT(' ', A)
300 FORMAT(A14, I3, A11, I3, A9, I3, I3, A10, 3(A6, I3), A32)
400 FORMAT(A14, I3, A11, I3, A9, I3, I3, A10, 3(A6, I3), A32, I1, A2)

read command line

CALL GETCL(CMDLIN)

parse command line

QERR = .FALSE.
IF (LENCHR(CMDLIN).EQ.0) THEN
  QERR = .TRUE.
  GOTO 2000
ENDIF
DO 1000 I = 2, LENCHR(CMDLIN)
  IF (CMDLIN(I:I).EQ. ' ') GOTO 1500
1000 CONTINUE
QERR = .TRUE.
GOTO 2000

1500 CONTINUE
INFIL = CMDLIN(2:I-1)
OUTFIL = CMDLIN(I+1:LENCHR(CMDLIN))

check usage

1000 CONTINUE
IF (QERR) THEN
  MSG = ' Usage : CLASSIFY <input file> <output file>'
```



```
PRINT 100, MSG(1:LENCHR(MSG))
MSG = '
PRINT 100, MSG(1:3)
MSG = '      This program reads the input file of soil sample'
PRINT 100, MSG(1:LENCHR(MSG))
MSG = '      data and classifies the samples into Prime Land'
PRINT 100, MSG(1:LENCHR(MSG))
MSG = '      Inventory classes.'
PRINT 100, MSG(1:LENCHR(MSG))
CALL EXIT(0)
```

ENDIF

check existence of input file

```
INQUIRE(FILE=INFIL,EXIST=GEXIST)
IF (.NOT. GEXIST) THEN
  MSG = ' Input file does not exist.'
  PRINT 100, MSG(1:LENCHR(MSG))
  CALL EXIT(0)
ENDIF
```

check existence of output file

```
INQUIRE(FILE=OUTFIL,EXIST=GEXIST)
IF (GEXIST) THEN
  MSG = ' Output file already exists.'
  PRINT 100, MSG(1:LENCHR(MSG))
  CALL EXIT(0)
ENDIF
```

open input file

```
OPEN(1,FILE=INFIL,ACCESS='SEQUENTIAL',FORM='FORMATTED',
+   STATUS='OLD',IOSTAT=IERR)
IF (IERR.NE.0) THEN
  MSG = ' Error opening input file.'
  PRINT 100, MSG(1:LENCHR(MSG))
  CALL EXIT(0)
ENDIF
```

open output file

```
OPEN(2,FILE=OUTFIL,ACCESS='SEQUENTIAL',FORM='FORMATTED',
+   STATUS='NEW',IOSTAT=IERR)
IF (IERR.NE.0) THEN
  MSG = ' Error opening output file.'
  PRINT 100, MSG(1:LENCHR(MSG))
  CALL EXIT(0)
ENDIF
```

read in record and classify

```
PRINT 100, ' Classifying data.....'
300 CONTINUE
READ(1,300,END=9000,IOSTAT=IERR) FILL1,DOM,FILL2,DDM,FILL3,DBR,
+   EBR,FILL4,LYRT(1),LYR1,LYRT(2),LYR2,LYRT(3),LYR3,FILL5
IF (IERR.NE.0) THEN
  MSG = 'Error reading from input file.'
  PRINT 100, MSG(1:LENCHR(MSG))
  CALL EXIT(1)
ENDIF

check for 3r

IF (EBR.GT.70) THEN
  PRM = 3
  SUB = 'r'
  GOTO 8000
ENDIF

check for 3o

IF (DOM.GT.40) THEN
  PRM = 3
  SUB = 'o'
  GOTO 8000
ENDIF

check for 3vs

IF (DBR.LT.30) THEN
  PRM = 3
  SUB = 'vs'
  GOTO 8000
ENDIF

check for soils with DBR LT 100

ELSE IF (DBR.LT.100) THEN

check for 2sm

IF (DDM.LE.(DBR/3)) THEN
  PRM = 2
  SUB = 'sm'
  GOTO 8000
ENDIF

find soil first soil layer GT 30

IF (LYR1.GE.30) THEN
  LAY = 1
ELSE IF (LYR2.GE.30) THEN
  LAY = 2
ELSE
```


4

1

11

C

1

1

2

1

1

1

1

1


```
      SUB = 'd '  
      GOTO 8000  
ENDIF
```

check for ribbon

```
      ELSE IF (LT.EQ. 'vfs ' .OR. LT.EQ. 'lvfs ' .OR. LT.EQ. 'SL '  
+      .OR. LT.EQ. 'SIL ' .OR. LT.EQ. 'SI ' ) THEN  
        PRM = 1  
        SUB = 'c '  
        GOTO 8000  
      ELSE  
        PRM = 1  
        SUB = 'f '  
      ENDIF
```

write out classified record

```
000 CONTINUE  
  WRITE(2,400)  FILL1,DOM,FILL2,DDM,FILL3,DBR,EBR,FILL4,LYRT(1),  
+  LYR1,LYRT(2),LYR2,LYRT(3),LYR3,FILL5,PRM,SUB  
  GOTO 3000
```

close files

```
000 CONTINUE  
  PRINT 100, ' Successful completion of CLASSIFY. '  
  CLOSE(1)  
  CLOSE(2)  
  CALL EXIT(0)  
  END
```

APPENDIX "C"

APPENDIX "C"

PRIME LAND INVENTORY - SOILS SITE DATA SHEET

DIST- RICT	BLCK #	TWP NAME	SITE #	POLY #	PURP	DOM	DSO	DBR	DCA	DDM	DPM	DMG	DGL

MR	DR	LYR1 TEXT	LYR1 THIK	LYR2 TEXT	LYR2 THIK	LYR3 TEXT	LYR3 THIK	LYR4 TEXT	LYR4 THIK	LYR5 TEXT	LYR5 THIK	LYR6 TEXT	LYR6 THIK

HUMUS FORM	STON	SOIL CLAS	LNDF CLAS	SITE POSN

 DOM=depth of organic matter, DSO=depth of solum, DBR=depth to bedrock,
 DCA=depth to carbonates, DDM=depth to distinct mottles, DPM=depth to
 prominent mottles, DMG=depth to gley, DGL=depth to gley zone,
 MR=moisture regime, DR=drainage class, LYR TEXT=layer texture, LYR
 THIK=layer thickness, HUMUS FORM=surface organic class, STON=stoniness
 class, SOIL CLAS=soil name, LNDF CLAS=landform class, SITE POSN=site
 position

DIST- RICT	BLCK #	TWP NAME	SITE #	POLY #	PURP	DOM	DSO	DBR	DCA	DDM	DPM	DMG	DGL

MR	DR	LYR1 TEXT	LYR1 THIK	LYR2 TEXT	LYR2 THIK	LYR3 TEXT	LYR3 THIK	LYR4 TEXT	LYR4 THIK	LYR5 TEXT	LYR5 THIK	LYR6 TEXT	LYR6 THIK

HUMUS FORM	STON	SOIL CLAS	LNDF CLAS	SITE POSN

APPENDIX "D"



APPENDIX "D"
REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
1	tcgMG/R	Y	Lu	Mh	2sm		1,446.514
2	RN(tMG/R)	X	Mn(Lp)	D	3vs		90.896
3	pOT	X	Lp	W	3o		14.049
4	pOT	X	Lp	W	3o		22.152
5	pOT	X	Lp	W	3o		10.449
6	pOT	X	Lp	W	3o		32.286
7	RN(tMG/R)	X	Mn(Lp)	D	3vs		270.706
8	RN(tMG/R)	X	Mn(Lp)	D	3vs		379.948
9	tcgMG/R)	X	Lu	Mh	2sm		18.062
10	RN(tMG/R)	Y	Mn(Lp)	D	3vs		1,083.428
11	RN(tMG/R)	X	Mn(Lp)	D	3vs		78.195
12	tsMG/R	Y	Lu	M	2sm		1,275.576
13	tsMG/R	X	Lu	M	2sm		55.107
14	RR(tMG/R)	X	Mrw(Lp)	D	3vs		3,368.884
15	pOT	X	Lp	W	3o		28.822
16	tsMG/R	X	Lp	D	2ss		6.741
17	tsMG/R	X	Lp	D	2ss		125.068
18	tsMG/R	X	Lp	D	2ss		12.240
19	tsMG/R	X	Lp	D	2ss		32.650
20	tsMG/R	X	Lp	D	2ss		26.414
21	tsMG/R	X	Lp	D	2ss		96.707
22	tsMG/R	X	Lp	D	2ss		80.319
23	pOT	X	Lp	W	3o		18.993
24	tsMG/R	X	Lp	D	2ss		78.680
25	tsMG/R	X	Lp	D	2ss		15.885
26	tsMG/R	X	Lp	D	2ss		91.664
27	tsMG/R	X	Lp	D	2ss		28.847
28	tsMG/R	X	Lp	D	2ss		27.985
29	tsMG/R	X	Lp	D	2ss		5.188
30	tsMG/R	X	Lp	D	2ss		29.401
31	tsMG/R	X	Lp	D	2ss		48.694
32	tsMG/R	X	Lp	D	2ss		5.782
33	tsMG/R	X	Lp	D	2ss		170.158
34	tsMG/R	X	Lu	D	2ss		51.161
35	tsMG/R	X	Lu	D	2ss		27.895
36	tsMG/R	X	Lu	D	2ss		39.827
37	tsMG/R	X	Lu	D	2ss		49.441
38	pOT	X	Lp	W	3o		21.680
39	pOT	X	Lp	W	3o		27.475
40	pOT	X	Lp	W	3o		27.312
41	RR(tMG/R)	X	Mr(Lp)	M	3vs		2,741.801

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
42	pOT	X	Lp	W	3o		39.212
43	tsMG/R	X	Lp	D	2ss		43.188
44	tsMG/R	X	Lp	D	2ss		14.807
45	pOT	X	Lp	W	3o		95.623
46	RN(tMG/R)	Y	Hji(Lp)	M	3vs		3,951.677
47	pOT	X	Lp	W	3o		23.310
48	pOT	X	Lp	W	3o		31.248
49	pOT	X	Lp	W	3o		23.950
50	tsMG/R	X	Lp	M	2sm		137.379
51	RN(tMG/R)	Y	Mn(Lp)	D	3vs		787.338
52	tsMG/R	Y	Lu	M	2sm		179.445
53	tsMG/R	Y	Lu	D	2ss		801.735
54	pOT	X	Lp	W	3o		14.785
55	pOT	X	Lp	W	3o		20.881
56	pOT	X	Lp	W	3o		470.421
57	pOT	X	Lp	W	3o		19.788
58	tsMG/R	X	Lp	M	2sm		164.228
59	RN(tMG/R)	X	Mn(Lp)	D	3vs		567.065
60	scMG/R	X	Lp	M	2sm		327.942
61	pOT	X	Lp	W	3o		89.899
62	scMG/R	X	Lp	M	2sm		72.397
63	scMG/R	X	Lp	M	2sm		43.826
64	pOT	Y	Lp	W	3o		34.747
65	pOT	X	Lp	W	3o		172.227
66	pOT	Y	Lp	W	3o		12.061
67	cMG	Y	Lp	W	2p		385.266
68	pOT	X	Lp	W	3o		87.074
69	scMG/R	Y	Lp	M	2sm		242.430
70	pOT	Y	Lp	W	3o		91.188
71	scMG/R	X	Ls	D	2sf		37.570
72	sgD, GO	Y	Mu	D	2d		4,174.163
73	sgGE	Y	Lr	D	2d		42.576
74	scMG/R	Y	Lu	D	2ss		77.721
75	scMG/R	Y	Ls	D	2ss		3,758.195
76	pOT	X	Lp	W	3o		12.978
77	pOT	X	Lp	W	3o		27.869
78	pOT	Y	Lp	W	3o		17.832
79	pOT	X	Lp	W	3o		25.076
80	pOT	X	Lp	W	3o		51.834
81	RN	X	-	-	3r		23.936
82	RN	X	-	-	3r		49.840

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
83	RN	X	-	-	3r		46.663
84	tscMG/R	X	Lp	M	2sm		311.858
85	tscMG/R	X	Lp	M	2sm		37.365
86	tscMG/R	X	Lp	M	2sm		21.614
87	tscMG/R	X	Lp	M	2sm		6.151
88	tscMG/R	X	Lp	M	2sm		12.919
89	tscMG/R	X	Lp	M	2sm		37.500
90	RN(tMG)	X	Ln(Lp)	D	2ss		592.959
91	RN(tMG)	X	Ln(Lp)	D	2ss		46.424
92	pOT	X	Lp	W	3o		14.217
93	RN(tMG)	X	Ln(Lp)	D	2ss		15.027
94	RN(tMG)	X	Ln(Lp)	D	2ss		25.830
95	RN(tMG)	X	Ln(Lp)	D	2sf		14.082
96	scMG/R	X	Ls	D	2ss		714.808
97	pOT	X	Lp	W	3o		26.789
98	pOT	X	Lp	W	3o		40.000
99	pOT	X	Lp	W	3o		16.692
100	RN(tMG/R)	X	Mn(Lp)	D	3vs		552.719
101	pOT	X	Lp	W	3o		47.381
102	scMG/R	X	Lp	M	2sm		386.210
103	pOT	X	Lp	W	3o		71.800
104	scMG/R	X	Ls	D	2sf		157.341
105	scMG/R	X	Ls	D	2sf		56.496
106	scMG/R	X	Ls	D	2sf		70.351
107	sgGE	X	Lr	D	2d		169.906
108	sgGE	X	Lr	D	2d		67.445
109	pOT	X	Lp	W	3o		87.180
110	pOT	X	Lp	W	3o		16.380
111	pOT	X	Lp	W	3o		122.356
112	tsMG/MG	X	Lr	D	2d		748.326
113	tsMG/MG	X	Ls	D	2d		137.307
114	tsMG/MG	X	Lr	D	2d		11.297
115	pOT	X	Lp	W	3o		304.322
116	scMG/R	X	Lp	M	2sm		214.376
117	RN(tMG/R)	X	Mn(Lp)	D	3vs		627.777
118	tsMG, pOT/R	X	Lu	Mh	2d	3o	1,101.625
119	pOT	X	Lp	W	3o		42.376
120	pOT	X	Lp	W	3o		58.786
121	pOT	X	Lp	W	3o		39.195
122	pOT	X	Lp	W	3o		11.619
123	pOT	X	Lp	W	3o		35.526

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
124	pOT	X	Lp	W	3o		36.668
125	pOT	X	Lp	W	3o		14.218
126	tsMG/MG/R	X	Lr	D	2ss		40.449
127	tsMG/MG/R	X	Lr	D	2ss		76.124
128	tsMG/MG/R	X	Lr	D	2ss		142.170
129	tsMG, pOT/R	Y	Lp	Wh	2p	3r	3,607.062
130	tsMG/MG/R	X	Lr	D	2ss		310.025
131	tsMG/MG/R	X	Lr	D	2ss		264.104
132	sGE	Y	Lr	D	2d		149.549
133	pOT	X	Lp	W	3o		45.624
134	RN(tMG/R)	X	Mn(Lp)	D	3vs		500.784
135	sGE, GO	X	Lr	D	2d		512.856
136	scLP/R	Y	Lp	M	2sm		545.063
137	scLP/R	Y	Lp	M	2sm		277.865
138	pOT	X	Lp	W	3o		147.917
139	pOT	Y	Lp	W	3o		6.840
140	pOT	X	Lp	W	3o		179.729
141	pOT	X	Lp	W	3o		36.902
142	pOT	X	Lp	W	3o		23.704
143	sgGE	X	Lr	D	2d		77.156
144	sGE, GO	Y	Lr	D	2d		354.535
145	scLP/R	X	Lp	M	2sm		23.066
146	scLP/R	X	Lp	M	2sm		13.966
147	pOT	X	Lp	W	3o		18.046
148	pOT	X	Lp	W	3o		127.982
149	pOT	X	Lp	W	3o		55.362
150	pOT	X	Lp	W	3o		67.125
151	sGE, GO	Y	Lr	D	2d		101.417
152	sGE, GO	X	Lr	D	2d		6.420
153	sGE, GO	X	Lr	D	2d		11.881
154	sGE	Y	Lr	D	2d		217.600
155	scMG/R	Y	Ls	D	2ss		70.816
156	scLP/R	Y	Lp	M	2sm		3,920.333
157	tscMG, pOT/R	Y	Lp	M	1c	3o	2,214.688
158	tsMG/MG	Y	Lr	D	2d		1,419.544
159	RR(tMG, pOT/R)	X	Mr(Lp)	M	2sm		193.996
160	pOT	X	Lp	W	3o		51.639
161	sGO, GE	X	Lu	D	2d		979.347
162	pOT	X	Lp	W	3o		13.479
163	pOT	X	Lp	W	3o		1,283.803
164	tsMG/MG	X	Lr	D	2d		22.840

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
165	tsMG/MG	X	Lr	D	2d		68.932
166	sgGE	X	Lr	D	2d		117.906
167	sgGE, GO	X	Lr	D	2d		62.871
168	RN	X	-	-	3r		461.584
169	RN	X	-	-	3r		148.571
170	pOT	X	Lp	W	3o		87.180
171	sgGE, GO	X	Lr	D	2d		547.967
172	sgGE	X	Lr	D	2d		149.426
173	tsMG, pOT/R	X	Lu	Wh	2d	3o	2,962.672
174	sgGO/MG	X	LrW	D	2d		622.260
175	pOT	X	Lp	W	3o		367.111
176	RP (tMG, pOT/R)	X	Mp (Lp)	M	3vs		3,412.736
177	sGO	X	Ln	D	2d		96.674
178	sGO	X	Ln	D	2d		58.663
179	sGO	X	Ln	D	2d		134.338
180	sgME	Y	Lr	D	2d		581.319
181	pOT	X	Lp	W	3o		52.521
182	pOT	X	Lp	W	3o		90.287
183	tscMG, pOT/R	X	Lp	M	1c	3o	292.556
184	sGO	X	Ln	D	2d		397.852
185	scLP/R	X	Lp	W	2sm		1,310.762
186	pOT	X	Lp	W	3o		23.239
187	tsMG/R	X	Lp	Mh	2sm		698.008
188	pOT	X	Lp	W	3o		20.641
189	pOT	X	Lp	W	3o		24.586
190	sgME	X	Lr	D	2d		237.716
191	pOT	X	Lp	W	3o		342.873
192	pOT	X	Lp	W	3o		85.593
193	sgGO	X	Lsw	D	2d		2,019.469
194	pOT	X	Lp	W	3o		72.842
195	pOT	X	Lp	W	3o		6.349
196	pOT	X	Lp	W	3o		23.475
197	pOT	X	Lp	W	3o		129.300
198	sGO	X	Lsw	D	2d		189.129
199	tsMG/R	X	Lp	Mh	2sm		1,157.986
200	sgME	X	Hr	D	2d		1,448.271
201	pOT	X	Lp	W	3o		18.900
202	pOT	X	Lp	W	3o		35.860
203	pOT	X	Lp	W	3o		20.880
204	tsMG, pOT/R	X	Lu	Mh	2d	3o	318.221
205	tsMG, pOT/R	X	Lu	Mh	2d	3o	167.578

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
	206 tsMG, pOT/R	X	Lu	Mh	2d	3o	115. 232
	207 pOT	X	Lp	W	3o		21. 146
	208 pOT	X	Lp	W	3o		129. 247
X	209 tsGM, pOT/R	X	Lu	Mh	2d	3o	47. 228
	210 pOT	X	Lp	W	3o		285. 957
	211 pOT	X	Lp	W	3o		24. 534
	212 pOT	X	Lp	W	3o		78. 671
	213 pOT	X	Lp	W	3o		16. 767
	214 pOT	X	Lp	W	3o		52. 536
	215 pOT	X	Lp	W	3o		17. 326
	216 pOT	X	Lp	W	3o		36. 051
	217 pOT	X	Lp	W	3o		13. 011
	218 tsMG/R	X	Lp	Mh	2sm		27. 120
	219 RP (tMG, pOT/R)	X	Mp (Lp)	M	2sm	3o	2, 490. 402
	220 smAP	X	Lp	W	2p		214. 321
	221 pOT	X	Lp	W	3o		10. 905
	222 pOT	X	Lp	W	3o		17. 510
	223 pOT	X	Lp	W	3o		30. 690
	224 RP (tMG/R)	Y	Mu (Lp)	Mh	3vs		3, 608. 334
	225 pOT	X	Lp	W	3o		15. 873
	226 pOT	Y	Lp	W	3o		45. 155
	227 pOT	X	Lp	W	3o		103. 931
	228 tMG/R (pOT)	X	Lu (Lp)	Mh	2ss	3o	1, 069. 676
	229 sgME (sGO)	X	Mu	D	2d		2, 123. 594
	230 tsMG, pOT/R	X	Lu	Mh	2d	3o	901. 811
	231 pOT	X	Lp	W	3o		57. 848
	232 pOT	X	Lp	W	3o		62. 104
	233 RP (tMG, pOT)	X	Mu (Lp)	M	2sm	3o	1, 399. 243
	234 pOT	X	Lp	W	3o		27. 600
	235 pOT	X	Lp	W	3o		33. 832
	236 tMG/R (pOT)	X	Lu (Lp)	Mh	2ss	3o	1, 714. 929
	237 pOT	X	Lp	W	3o		53. 113
	238 RP (tMG, pOT)	Y	Mu (Lp)	M	2ss	3o	1, 007. 727
	239 pOT	X	Lp	W	3o		17. 277
	240 pOT	X	Lp	W	3o		8. 722
	241 tMG/R (pOT)	X	Lu (Lp)	Mh	2ss	3o	906. 871
	242 pOT	X	Lp	W	3o		18. 597
	243 pOT	X	Lp	W	3o		12. 838
	244 pOT	X	Lp	W	3o		35. 170
	245 pOT	X	Lp	W	3o		15. 890
	246 pOT	X	Lp	W	3o		33. 205

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
247	pOT	X	Lp	W	3o		3. 689
248	sgGE, GO	X	Lr	D	2d		69. 240
249	sgGE, GO	X	Lr	D	2d		53. 580
250	sgGE, GO	X	Lr	D	2d		121. 493
251	sgGD	X	Ms	D	2d		1, 042. 144
252	pOT	X	Lp	W	3o		47. 769
253	pOT	X	Lp	W	3o		247. 097
254	pOT	X	Lp	W	3o		15. 865
255	pOT	Y	Lp	W	3o		61. 947
256	pOT	X	Lp	W	3o		66. 477
257	sgGE, GO	X	Mr	D	2d		47. 965
258	sgGE, GO	X	Mr	D	2d		19. 260
259	sgGE, GO	X	Mr	D	2d		278. 836
260	sgGE, GO	Y	Mr	D	2d		68. 308
261	sgGE, GO	Y	Mr	D	2d		90. 237
262	cLP/R	X	Lp	W	2sm		1, 005. 946
263	cLP/R	Y	Lp	W	2sm		100. 370
264	scLP/R	Y	Lp	M	2sm		2, 039. 572
265	tsMG/R	X	Lp	Mh	2sm		63. 148
266	tsMG/R	Y	Lp	Mh	2sm		123. 485
267	tsMG/R	Y	Lp	Mh	2sm		550. 031
268	tsMG/R	X	Lp	Mh	2sm		6. 318
269	tsMG/R	X	Lp	Mh	2sm		8. 151
270	tsMG/R	X	Lp	Mh	2sm		799. 511
271	tsMG/R	Y	Lp	Mh	2sm		320. 398
272	tsMG(R)	Y	Lu(Ln)	M	2i	3r	412. 463
273	sgME	Y	Hr	D	2d		279. 101
274	sgME	Y	Hr	D	2d		37. 358
275	sgME	X	Hr	D	2d		190. 253
276	sgME	Y	Mr	D	2d		311. 355
277	sgME	Y	Mr	D	2d		192. 489
278	tsMG(R)	X	Lu(Ln)	M	2d	3r	16. 462
279	tsMG(RN)	Y	Lu(Ln)	D	2d	3r	7, 572. 785
280	tsMG(RN)	Y	Lu(Ln)	M	2d	3r	23. 765
281	tsMG(RN)	X	Lu(Ln)	M	2d	3r	509. 376
282	tsMG/R	X	Lp	D	2ss		37. 402
283	tsMG/R	X	Lp	D	2ss		81. 076
284	tsMG/R	X	Lp	D	2ss		150. 107
285	pOT	X	Lp	W	3o		36. 265
286	pOT	X	Lp	W	3o		119. 727
287	pOT	X	Lp	W	3o		235. 167

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
288	pOT	X	Lp	W	3o		126.424
289	pOT	X	Lp	W	3o		198.368
290	pOT	X	Lp	W	3o		75.584
291	sgE, GO	X	Mr	D	2d		30.774
292	sgE, GO	Y	Mr	D	2d		53.798
293	sgO	X	Mn	D	2d		43.962
294	sgO	Y	Mn	D	2d		509.008
295	pOT	X	Lp	D	3o		15.722
296	pOT	Y	Lp	D	3o		35.684
297	pOT	X	Lp	D	3o		58.688
298	pOT	X	Lp	D	3o		16.015
299	pOT	X	Lp	D	3o		19.459
300	pOT	X	Lp	D	3o		16.990
301	RP (tMG, pOT)	Y	Mu (Lp)	M	2sm	3o	3,271.226
302	tsMG/R	X	Lu	M	2sm		155.317
303	tsMG/R	X	Lu	M	2sm		326.297
304	pOT	X	Lp	W	3o		375.775
305	pOT	X	Lp	W	3o		102.114
306	pOT	X	Lp	W	3o		25.582
307	pOT	X	Lp	W	3o		44.912
308	pOT	X	Lp	W	3o		3.608
309	RN	X	-	-	3r		64.152
310	pOT	X	Lp	W	3o		234.653
311	pOT	X	Lp	W	3o		10.285
312	pOT	X	Lp	W	3o		15.176
313	pOT	X	Lp	W	3o		11.857
314	pOT	X	Lp	W	3o		12.071
315	pOT	X	Lp	W	3o		5.737
316	pOT	X	Lp	W	3o		24.453
317	GO	X	-	-	2d		131.557
318	sgGE	X	Mr	D	2d		336.491
319	sgGD	X	Ln	D	2d		1,343.907
320	sgO	X	Ls	Mh	2i		383.484
321	pOT	X	Lp	W	3o		70.868
322	pOT	X	Lp	W	3o		73.211
323	pOT	X	Lp	W	3o		128.446
324	pOT	X	Lp	W	3o		80.488
325	pOT	X	Lp	W	3o		12.803
326	pOT	X	Lp	W	3o		7.846
327	pOT	X	Lp	W	3o		25.553
328	pOT	X	Lp	W	3o		25.990

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
329	pOT	X	Lp	W	3o		33.250
330	pOT	X	Lp	W	3o		1,455.839
331	RR(tMG, pOT/R)	X	Mr(LP)	M	2sm	3o	1,105.913
332	sGE	X	Mr	D	2d		85.640
333	sGE	X	Mr	D	2d		27.159
334	sGE	X	Mr	D	2d		151.969
335	sgGD	X	Ln	D	2d		41.174
336	sgGD	X	Ln	D	2d		30.701
337	sgGD	X	Ln	D	2d		11.619
338	scLP/R	X	Ls	M	2sm		1,412.956
339	GO	X	-	-	2d		27.047
340	pOT	X	Lp	W	3o		7.036
341	pOT	X	Lp	W	3o		156.578
342	pOT	X	Lp	W	3o		185.414
343	pOT	X	Lp	W	3o		77.698
344	pOT	X	Lp	W	3o		35.570
345	pOT	X	Lp	W	3o		47.028
346	pOT	X	Lp	W	3o		31.706
347	pOT	X	Lp	W	3o		49.330
348	pOT	X	Lp	W	3o		33.264
349	tsMG/R	X	Lp	D	2ss		161.126
350	tsMG/R	X	Lp	D	2ss		529.987
351	sgGE	X	Mr	D	2d		125.039
352	tsMG/R	X	Lp	D	2ss		338.210
353	sgO/R	X	Ln	D	2ss		622.598
354	sGO	Y	Lu	D	2d		818.317
355	pOT	X	Lp	W	3o		297.220
356	pOT	X	Lp	W	3o		7.030
7X 358	scLP/R	Y	Ls	M	2sm		6,197.711
359	sGO	Y	Lu	D	2d		216.713
360	pOT	X	Lp	W	3o		93.260
361	pOT	X	Lp	W	3o		9.798
362	pOT	X	Lp	W	3o		88.926
363	sGO	X	Lu	D	2d		20.061
364	sGO	X	Lu	D	2d		17.818
365	sGO	X	Lu	D	2d		15.991
366	sGO	X	Lu	D	2d		66.887
367	scLP/R	X	Lp	M	2sm		81.322
368	pOT	X	Lp	W	3o		180.783
369	pOT	X	Lp	W	3o		159.280
370	RR(tMG, pOT/R)	X	Mr(LP)	M	2sm	3o	2,182.652

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
371	scLP/R	X	Lp	W	2sm		144.819
372	sgO	Y	Lp	D	2d		160.997
373	pOT	X	Lp	W	3o		29.986
374	pOT	X	Lp	W	3o		10.518
375	pOT	X	Lp	W	3o		151.389
376	sME, GO	X	Mr	D	2d		238.309
377	sgE	X	Lr	D	2d		84.236
378	tsMG/R	Y	Lu	D	2ss		10,230.410
379	tsMG/MG	X	Mrw	D	2d		185.252
380	tsMG/MG	X	Mrw	D	2d		354.497
381	sME	X	Mrw	D	2d		228.113
382	scLP/R	X	Lp	M	2sm		332.270
383	tsMG/R	X	Lu	D	2ss		28.404
384	sME	X	Mrw	D	2d		284.125
385	pOT	X	Lp	W	3o		54.124
386	pOT	X	Lp	W	3o		34.328
387	pOT	X	Lp	W	3o		50.489
388	pOT	X	Lp	W	3o		56.302
389	pOT	X	Lp	W	3o		14.235
390	pOT	X	Lp	W	3o		425.810
391	tsMG/MG	X	Mrw	D	2d		68.146
392	tsMG/MG	X	Mrw	D	2d		39.508
393	sgME	X	Mr	D	2d		225.042
394	pOT	X	Lp	W	3o		630.569
395	scLP/R	X	Lp	M	2sm		332.554
396	pOT	X	Lp	W	3o		61.310
397	scLP/R	X	Lp	M	2sm		74.097
398	csgMG/R	Y	Lu	M	2sm		2,152.458
399	pOT	Y	Lp	W	3o		121.472
400	sgGE	Y	Lr	D	2d		130.889
401	sgGD/MG	X	Lr	D	2d		1,453.216
402	sgGD/MG	X	Lr	D	2d		321.861
403	pOT	X	Lp	W	3o		119.236
404	pOT	X	Lp	W	3o		12.060
405	pOT	X	Lp	W	3o		13.371
406	pOT	X	Lp	W	3o		19.293
407	pOT	Y	Lp	W	3o		43.135
408	tsMG/MG	X	Mrw	D	2d		122.431
409	tsMG/MG	X	Mrw	D	2d		116.625
410	tsMG/MG	X	Mrw	D	2d		46.958
411	tsMG/MG	X	Mrw	D	2d		302.701

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
412	pOT	Y	Lp	W	3o		169.007
413	pOT	X	Lp	W	3o		11.715
414	pOT	X	Lp	W	3o		19.920
415	tsMG/MG	X	Mrw	D	2d		177.609
416	tsMG/MG	X	Mrw	D	2d		117.892
417	tsMG/MG	X	Mrw	D	2d		78.689
418	tsMG/MG	X	Mrw	D	2d		213.837
419	tsMG/MG	Y	Mrw	D	2d		179.795
420	tsMG/MG	Y	Mrw	D	2d		97.333
421	sgME	Y	Mrw	D	2d		693.426
422	pOT	X	Lp	W	3o		57.987
423	pOT	X	Lp	W	3o		140.634
424	pOT	X	Lp	W	3o		9.934
425	pOT	X	Lp	W	3o		195.589
426	pOT	X	Lp	W	3o		106.767
427	pOT	X	Lp	W	3o		32.650
428	pOT	Y	Lp	W	3o		59.822
429	pOT	X	Lp	W	3o		20.705
430	pOT	X	Lp	W	3o		20.494
431	pOT	X	Lp	W	3o		116.257
432	tsMG/MG	Y	Lrw	D	2d		179.917
433	tsMG/MG	Y	Lrw	D	2d		122.445
434	tsMG/MG	X	Mrw	D	2d		329.917
435	tsMG/MG	X	Mrw	D	2d		119.267
436	tsMG/MG	X	Lrw	D	2d		97.469
437	tsMG/MG	X	Lrw	D	2d		343.975
438	pOT	X	Lp	W	3o		130.714
439	pOT	X	Lp	W	3o		63.238
440	pOT	X	Lp	W	3o		26.400
441	pOT	X	Lp	W	3o		63.085
442	tscMG	X	Lu	D	2d		1,645.367
443	pOT	X	Lp	W	3o		36.836
444	scMG/R	Y	Lu	M	2sm		2,265.686
445	sgGD/MG	Y	Lr	D	2d		1,343.103
446	scMG/R	X	Lu	M	2sm		43.621
447	tsMG/MG	X	Lrw	D	2d		53.014
448	scMG/R	Y	Lu	D	2sf		1,570.289
449	pOT	X	Lp	W	3o		44.721
450	pOT	X	Lp	W	3o		115.662
451	pOT	X	Lp	W	3o		22.166
452	pOT	X	Lp	W	3o		46.696

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
453	sgOE	Y	Lr	D	2d		321.864
454	scMG/R	X	Lu	D	2sf		426.159
455	pOT	X	Lp	W	3o		24.356
456	RN(tMG/R)	Y	Hnw(Lp)	D	3vs		2,664.194
457	tsMG/R	X	Lp	D	2ss		16.862
458	tsMG/R	X	Lp	D	2ss		91.525
459	tsMG/R	X	Lp	D	2ss		6.869
460	tsMG/R	X	Lp	D	2ss		3.709
461	tsMG/R	Y	Lp	D	2ss		12.509
462	tsMG/R	X	Lp	D	2ss		5.597
463	tsMG/R	X	Lp	D	2ss		19.330
464	tsMG/R	X	Lp	D	2ss		45.466
465	tsMG/R	X	Lp	D	2ss		95.828
466	tsMG/R	X	Lp	D	2ss		54.980
467	tsMG/R	X	Lp	D	2ss		25.651
468	pOT	X	Lp	W	3o		27.174
469	pOT	X	Lp	W	3o		48.336
470	pOT	X	Lp	W	3o		44.536
471	pOT	X	Lp	W	3o		23.179
472	pOT	Y	Lp	W	3o		24.079
473	RN(tMG, pOT/R)	Y	Mnw(Lp)	M	2ss	3o	3,895.354
474	tsMG/R	X	Lp	D	2ss		156.415
475	tsMG/R	X	Lp	D	2ss		24.448
476	tsMG/R	X	Lp	D	2ss		227.701
477	pOT	X	Lp	W	3o		36.456
479	pOT	X	Lp	W	3o		23.512
480	pOT	X	Lp	W	3o		28.331
481	RN(tMG, pOT/R)	X	Mnw(Lp)	M	2sm	3o	34.539
482	RN(tMG/R)	X	Mnw(Lp)	D	3vs		13,903.740
483	tsMG/R	X	Lp	D	2ss		18.170
484	tsMG/R	X	Lp	D	2ss		42.402
485	tsMG/R	X	Lp	D	2ss		18.445
486	tsMG/R	X	Lp	D	2ss		21.991
487	tsMG/R	X	Lp	D	2ss		15.174
488	tsMG/R	X	Lp	D	2ss		7.996
489	pOT	X	Lp	W	3o		17.309
490	pOT	X	Lp	W	3o		32.969
491	pOT	X	Lp	W	3o		40.487
492	pOT	X	Lp	W	3o		60.653
493	pOT	X	Lp	W	3o		23.848
494	scMG, pOT/R	X	Lp	M	2d	3o	441.342

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
495	scMG, pOT/R	X	Lp	M	2d	3o	300.888
496	scMG/R	X	Lu	D	2sf		24.197
497	tsMG/R	X	Lu	D	2ss		26.759
498	tsMG/R	X	Lu	D	2ss		64.819
499	pOT	X	Lp	W	3o		27.755
500	pOT	X	Lp	W	3o		10.672
501	RN(tMG, pOT/R)	X	Mn(Lp)	M	2sm	3o	3,026.938
502	pOT	X	Lp	W	3o		14.580
503	pOT	X	Lp	W	3o		29.494
504	pOT	X	Lp	W	3o		12.325
505	RN(tMG, pOT/R)	X	Mn(Lp)	M	2sm	3o	1,953.397
506	tsMG/R	X	Lp	D	2ss		5.223
507	tsMG/R	X	Lp	D	2ss		7.762
508	tsMG/R	X	Lp	D	2ss		54.350
509	pOT	X	Lp	W	3o		346.565
510	pOT	X	Lp	W	3o		269.555
511	pOT	X	Lp	W	3o		15.182
512	tscMG/R	X	Lp	M	2sm		52.339
513	tscMG/R	X	Lp	M	2sm		481.307
514	tscMG/R	X	Lp	M	2sm		8.418
515	tscMG/R	X	Lp	M	2sm		13.915
516	tscMG/R	X	Lp	M	2sm		242.679
517	RN(tMG/R)	X	Mn(Lp)	D	3vs		6,394.030
518	pOT	X	Lp	W	3o		15.056
519	pOT	X	Lp	W	3o		8.950
520	pOT	X	Lp	W	3o		130.478
521	pOT	X	Lp	W	3o		152.276
522	pOT	X	Lp	W	3o		133.217
523	pOT	X	Lp	W	3o		12.765
524	pOT	X	Lp	W	3o		313.246
525	scLP/R	X	Lp	M	2sm		181.836
526	scLP/R	X	Lp	M	2sm		188.980
527	scLP/R	X	Lp	M	2sm		80.632
528	scLP/R	X	Lp	M	2sm		30.783
529	scLP/R	X	Lp	M	2sm		40.947
530	scLP/R	X	Lp	M	2sm		4,512.500
531	tsMG/R	X	Lu	D	2ss		685.683
532	RP(tMG/R)	X	Mu(Lp)	D	3vs		8,392.609
533	scMG/R	X	Lp	M	2sm		262.987
534	scMG/R	X	Lp	M	2sm		49.478
535	scMG/R	X	Lp	M	2sm		132.594

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
536	pOT	X	Lp	W	3o		264.784
537	pOT	X	Lp	W	3o		38.642
538	pOT	X	Lp	W	3o		53.781
539	pOT	X	Lp	W	3o		25.252
540	pOT	X	Lp	W	3o		14.092
541	tsMG/R	X	Lp	D	2ss		52.382
542	tsMG/R	X	Lp	D	2ss		18.046
543	tsMG/R	X	Lp	D	2ss		14.278
544	tsMG/R	X	Lp	D	2ss		101.751
546	tsMG/R	X	Lp	D	2ss		47.451
547	tsMG/R	X	Lp	D	2ss		317.817
548	tsMG/R	X	Lp	D	2ss		11.993
549	tsMG/R	X	Lp	D	2ss		251.416
550	tsMG/R	X	Lp	D	2ss		28.278
551	pOT	X	Lp	W	3o		39.974
552	pOT	X	Lp	W	3o		7.342
554	pOT	X	Lp	W	3o		18.731
555	pOT	X	Lp	W	3o		35.948
556	pOT	X	Lp	W	3o		12.054
557	RP(tMG, pOT/R)	X	Mu(Lp)	M	2sm	3o	2,319.126
558	RP(tMG, pOT/R)	X	Mu(Lp)	M	2sm	3o	605.307
559	pOT	X	Lp	W	3o		10.248
560	pOT	X	Lp	W	3o		8.123
561	pOT	X	Lp	W	3o		30.305
562	pOT	X	Lp	W	3o		196.899
563	tsMG/R	X	Lu	D	2ss		7.816
564	tsMG/R	X	Lu	D	2ss		55.391
565	tsMG/R	X	Lu	D	2ss		67.727
566	tsMG/R	X	Lu	D	2ss		28.553
567	tsMG/R	X	Lu	D	2ss		729.415
568	pOT	X	Lp	W	3o		14.981
569	pOT	X	Lp	W	3o		23.063
570	pOT	X	Lp	W	3o		71.449
571	scLP/R	X	Lp	M	2sm		56.333
572	tsMG/R	X	Lu	D	2ss		9.378
573	tsMG/R	X	Lu	D	2ss		4.262
574	scLP/R	X	Lp	M	2sm		9.388
575	RP(tMG, pOT/R)	X	Mu(Lp)	M	2sm	3o	40.581
576	RP(tMG, pOT/R)	X	Mu(Lp)	M	2sm	3o	74.573
577	RP(tMG/R)	X	Mu(Lp)	D	3vs		712.133
578	pOT	X	Lp	W	3o		7.964

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
579	tsMG/R	X	Lu	D	2ss		695.709
580	pOT	X	Lp	W	3o		41.780
581	pOT	X	Lp	W	3o		12.660
582	pOT	X	Lp	W	3o		24.390
583	scLP/R	X	Lp	M	2sm		24.945
584	scLP/R	X	Lp	M	2ss		111.047
585	RN	X	-	-	3r		277.364
586	RN	X	-	-	3r		25.796
587	RN	X	-	-	3r		222.006
588	RN	X	-	-	3r		59.733
589	RN	X	-	-	3r		95.350
590	RN	X	-	-	3r		59.975
591	RN	X	-	-	3r		147.683
592	pOT	X	Lp	W	3o		117.905
593	pOT	X	Lp	W	3o		68.128
594	pOT	X	Lp	W	3o		18.039
595	pOT	X	Lp	W	3o		13.395
596	pOT	X	Lp	W	3o		26.221
597	pOT	X	Lp	W	3o		22.598
598	pOT	X	Lp	W	3o		5.260
599	pOT	X	Lp	W	3o		20.632
600	pOT	X	Lp	W	3o		11.978
601	tsMG/R	X	Lu	D	2ss		42.654
602	tsMG/R	X	Lu	D	2ss		90.260
603	tsMG/R	X	Lu	D	2ss		168.466
604	tsMG/R	X	Lu	D	2ss		141.653
605	tsMG/R	X	Lu	D	2ss		29.500
606	RN	X	-	-	3r		92.249
607	RN	X	-	-	3r		229.747
608	RN	X	-	-	3r		28.522
609	RN	X	-	-	3r		17.361
610	RN	X	-	-	3r		18.141
611	RN	X	-	-	3r		92.691
612	pOT	X	Lp	W	3o		7.345
613	pOT	X	Lp	W	3o		32.762
614	pOT	X	Lp	W	3o		32.675
615	pOT	X	Lp	W	3o		54.223
616	pOT	X	Lp	W	3o		11.409
617	pOT	X	Lp	W	3o		15.097
618	pOT	X	Lp	W	3o		43.421
619	pOT	X	Lp	W	3o		28.425

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
620	pOT	X	Lp	W	3o		38.645
621	tsMG/R	X	Lu	D	2ss		2,663.584
622	pOT	X	Lp	W	3o		1,005.400
623	pOT	X	Lp	W	3o		8.872
624	tsMG/R	X	Lk	D	2ss		2,735.106
625	pOT	X	Lp	W	3o		43.939
626	pOT	X	Lp	W	3o		107.482
627	pOT	X	Lp	W	3o		52.649
628	pOT	X	Lp	W	3o		17.094
629	pOT	X	Lp	W	3o		19.353
630	pOT	X	Lp	W	3o		15.399
631	pOT	X	Lp	W	3o		46.174
632	pOT	X	Lp	W	3o		49.294
633	pOT	X	Lp	W	3o		41.112
634	sGO	X	Lr	D	2d		170.042
635	sgME, GO	X	Lrw	D	2d		162.278
636	scLP/R	X	Lp	M	2sm		55.124
637	RP (tMG/R)	Y	Mu (Lp)	D	3vs		3,121.480
638	pOT	X	Lp	W	3o		17.947
639	pOT	X	Lp	W	3o		19.621
640	sGO	X	Lr	D	2d		354.666
641	scLP/R	X	Lp	M	2sm		53.457
642	sgME, GO	X	Lrw	D	2d		100.999
643	sgME, GO	Y	Lrw	D	2d		396.822
644	pOT	X	Lp	W	3o		54.307
645	pOT	X	Lp	W	3o		24.705
646	pOT	X	Lp	W	3o		92.717
647	pOT	X	Lp	W	3o		7.147
648	pOT	X	Lp	W	3o		13.334
649	tsMG	Y	Lu	D	1c		7,896.534
650	pOT	X	Lp	W	3o		28.508
651	pOT	X	Lp	W	3o		26.536
652	pOT	X	Lp	W	3o		48.219
653	pOT	X	Lp	W	3o		133.900
654	pOT	X	Lp	W	3o		52.420
655	pOT	X	Lp	W	3o		16.723
656	sME	X	Mrw	D	2d		652.118
657	RN	X	-	-	3r		77.471
658	RN	X	-	-	3r		38.397
659	RN	X	-	-	3r		137.249
660	RN	X	-	-	3r		103.621

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
661	sGE	X	Lr	D	2d		3.129
662	sGE	X	Lr	D	2d		16.001
663	scLP/R	Y	Lp	M	2sm		13,049.060
664	tsMG/R	X	Lp	D	2ss		367.638
665	pOT	X	Lp	W	3o		252.679
666	RN(tMG/R)	Y	Mn(Lp)	D	3vs		503.246
667	RN	X	-	-	3r		349.058
668	tsMG/R	X	Lp	D	2ss		1,290.133
669	pOT	X	Lp	W	3o		43.929
670	sgME	Y	Mrw	D	2d		1,448.011
671	tsMG, pOT/R	X	Lk	M	2d	3o	693.332
2/673	pOT	X	Lp	W	3o		56.347
674	pOT	X	Lp	W	3o		159.595
675	pOT	X	Lp	W	3o		63.559
676	RN	X	-	-	3r		18.874
677	RN	X	-	-	3r		149.507
678	RN	X	-	-	3r		204.935
679	RN	X	-	-	3r		32.320
680	tsMG/R	X	Lp	D	2ss		25.761
681	tsMG/R	X	Lp	D	2ss		235.278
682	tsMG/R	X	Lp	D	2ss		14.003
683	tsMG/R	X	Lp	D	2ss		196.416
684	tsMG/R	X	Lp	D	2ss		45.050
685	RR	X	Lr	D	3r		286.700
686	RR	X	Lr	D	3r		181.099
687	RR	X	Lr	D	3r		58.009
688	pOT	X	Lp	W	3o		7.000
689	pOT	X	Lp	W	3o		34.552
690	pOT	X	Lp	W	3o		12.398
691	scLP/R	X	Lp	M	2sm		8,544.785
692	sgME, GO	X	Mr	D	2d		910.316
693	tMG/R	X	Lp	D	2ss		22.406
694	tMG/R	X	Lp	D	2ss		149.641
695	tMG/R	X	Lp	D	2ss		43.249
696	RN	X	-	-	3r		65.762
697	cmAP	X	Lp	W	2p		362.611
698	RR	X	Mr	D	3r		113.126
699	RR	X	Mr	D	3r		446.037
700	pOT	X	Lp	W	3o		31.758
701	pOT	X	Lp	W	3o		8.614
702	pOT	X	Lp	W	3o		33.986

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
703	pOT	X	Lp	W	3o		16.574
704	pOT	X	Lp	W	3o		64.906
705	pOT	X	Lp	W	3o		49.627
706	pOT	X	Lp	W	3o		25.703
707	pOT	X	Lp	W	3o		18.089
708	pOT	X	Lp	W	3o		25.696
709	pOT	X	Lp	W	3o		17.489
710	pOT	X	Lp	W	3o		37.197
711	pOT	X	Lp	W	3o		38.882
712	pOT	X	Lp	W	3o		5.380
713	pOT	X	Lp	W	3o		74.858
714	RN	X	-	-	3r		43.647
715	RN	X	-	-	3r		18.782
716	RN	X	-	-	3r		78.936
717	RR(tMG, pOT/R)	X	Mr(Lp)	M	2sm	3o	6,577.637
718	RR	X	Mr	D	3r		375.162
719	RR	X	Mr	D	3r		110.723
720	scLP/R	X	Lp	M	2sm		29.842
721	RR(tMG, pOT/R)	X	Mr(Lp)	M	2sm	3o	40.942
722	pOT	X	Lp	W	3o		10.797
723	pOT	X	Lp	W	3o		14.292
724	pOT	X	Lp	W	3o		38.804
725	pOT	X	Lp	W	3o		8.274
726	pOT	X	Lp	W	3o		27.661
727	pOT	X	Lp	W	3o		40.711
9728	pOT	X	Lp	W	3o		12.765
730	RN	X	-	-	3r		151.513
731	RN	Y	-	-	3r		167.417
3732	tsMG/R	X	Lp	D	2ss		116.334
734	tsMG/R	Y	Lp	D	2ss		965.387
735	pOT	X	Lp	W	3o		30.375
736	pOT	X	Lp	W	3o		39.634
737	pOT	X	Lp	W	3o		46.871
738	pOT	X	Lp	W	3o		96.917
739	pOT	X	Lp	W	3o		56.098
740	pOT	X	Lp	W	3o		22.740
741	pOT	X	Lp	W	3o		26.061
3742	RR(tMG/R)	X	Lr(Lp)	M	3vs		1,030.123
744	tsMG/R	X	Lp	D	2ss		214.583
745	tsMG/R	X	Lp	D	2ss		137.665
746	tsMG/R	X	Lp	D	2ss		303.400

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
747	tsMG/R	X	Lp	D	2ss		264.416
748	sgME	Y	Lr	D	2d		265.571
749	sgME	X	Lr	D	2d		240.230
750	tsMG/R	X	Lp	D	2ss		676.666
751	tsMG/R	X	Lp	D	2ss		99.395
752	RR	Y	-	-	3r		205.101
753	RR	Y	-	-	3r		47.374
754	pOT	X	Lp	W	3o		29.319
755	pOT	X	Lp	W	3o		231.749
756	pOT	X	Lp	W	3o		12.547
757	pOT	X	Lp	W	3o		18.669
758	pOT	X	Lp	W	3o		20.566
759	pOT	X	Lp	W	3o		51.163
760	pOT	X	Lp	W	3o		51.508
762	scLP/R	X	Ls	M	2sm		2,005.467
763	scLP/R	X	Lp	M	2sm		271.804
765	sgME	X	Lr	D	2d		473.962
766	tsMG/R	X	Lp	D	2ss		30.383
767	tsMG/R	X	Lp	D	2ss		14.696
768	tsMG/R	X	Lp	D	2ss		331.494
769	tsMG/R	X	Lp	D	2ss		64.533
770	tsMG/R	X	Lu	D	2ss		526.406
771	tsMG/R	X	Lu	D	2ss		12.635
772	tsMG/R	X	Lu	D	2ss		31.331
773	tsMG/R	X	Lu	D	2ss		54.157
774	tsMG/R	X	Ls	D	2ss		727.263
775	pOT	X	Lp	W	3o		31.477
776	pOT	X	Lp	W	3o		18.679
777	pOT	X	Lp	W	3o		16.041
778	pOT	X	Lp	W	3o		229.659
779	pOT	X	Lp	W	3o		63.463
780	sgGO	Y	Lsw	D	2d		4,426.546
782	sgMG(RN)	Y	Lu(Ln)	D	2d	3r	1,326.016
783	tsMG	Y	Lr	D	2d		300.689
784	RN	X	-	-	3r		27.634
785	RN(GO)	Y	-	-	2ss		182.953
786	pOT	X	Lp	W	3o		46.738
787	pOT	X	Lp	W	3o		6.430
788	pOT	X	Lp	W	3o		34.770
789	pOT	X	Lp	W	3o		29.570
790	pOT	X	Lp	W	3o		67.918

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
791	pOT	X	Lp	W	3o		51.147
792	pOT	X	Lp	W	3o		12.102
793	tsMG	Y	Lr	D	2d		117.139
794	tsMG	X	Lr	D	2d		85.677
795	tsMG	Y	Lr	D	2d		372.079
796	tsMG	X	Lr	D	2d		147.117
797	tsMG	X	Lr	D	2d		316.699
798	tsMG	X	Lr	D	2d		103.291
799	tsMG	Y	Lr	D	2d		255.426
800	tsMG	Y	Lr	D	2d		54.551
801	tsMG	Y	Lr	D	2d		194.848
802	tsMG	X	Lr	D	2d		217.332
803	tsMG	X	Lr	D	2d		49.403
804	tsMG	X	Lr	D	2d		82.634
805	tsMG	X	Lr	D	2d		170.371
806	tsMG	X	Lr	D	2d		103.238
807	sgGO	Y	Muw	D	2d		3,364.701
808	sgGO	X	Ln	D	2d		105.060
809	sgGO	X	Ln	D	2d		53.997
810	scLP/R	Y	Ls	M	2sm		1,954.515
811	sgME	Y	Hrw	D	2d		535.342
812	pOT	X	Lp	W	3o		56.821
813	pOT	X	Lp	W	3o		70.898
814	pOT	X	Lp	W	3o		85.522
815	pOT	X	Lp	W	3o		11.422
816	pOT	X	Lp	W	3o		18.517
817	scLP/R	Y	Lp	M	2sm		2,627.334
818	sgGO	Y	Ls	D	2d		377.257
819	sgGO	X	Ls	D	2d		170.506
820	pOT	X	Lp	W	3o		10.033
821	pOT	X	Lp	W	3o		10.238
822	tsMG(RN)	Y	Lu(Ln)	M	2i	3r	5,233.865
823	RP(tMG, pOT)	X	Mu(Lp)	M	2sm	3o	241.247
824	RP(tMG, pOT)	X	Mu(Lp)	M	2sm	3o	190.574
825	RP(tMG, pOT)	X	Mu(Lp)	M	2sm	3o	97.821
826	RP(tMG, pOT)	X	Mu(Lp)	M	2sm	3o	234.179
827	RP(tMG, pOT)	X	Mu(Lp)	M	2sm	3o	5,358.822
828	pOT	X	Lp	W	3o		34.358
829	pOT	X	Lp	W	3o		136.464
830	pOT	X	Lp	W	3o		36.148
831	pOT	X	Lp	W	3o		22.351

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "PAKWASH LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
832	pOT	X	Lp	W	3o		25.386
833	pOT	X	Lp	W	3o		22.853
834	pOT	X	Lp	W	3o		89.430
835	pOT	X	Lp	W	3o		41.742
836	pOT	X	Lp	W	3o		19.945
837	pOT	X	Lp	W	3o		10.795
838	pOT	X	Lp	W	3o		22.516
839	pOT	X	Lp	W	3o		24.921
840	pOT	X	Lp	W	3o		42.148
841	scLP/tsMG/R	X	Luw(Lp)	M	2sm		3,126.719
842	scLP/tsMG/R	X	Luw(Lp)	M	2sm		200.590
843	tsMG/R	X	Lp	M	2i		838.425
844	RN(tMG)	X	Ln	D	2ss		499.135
845	RN	X	-	-	3r		72.110
846	RN	X	-	-	3r		53.472
847	pOT	X	Lp	W	3o		17.853
848	pOT	X	Lp	W	3o		29.422
849	pOT	X	Lp	W	3o		18.040
850	pOT	X	Lp	W	3o		24.969
851	pOT	X	Lp	W	3o		25.995
852	pOT	X	Lp	W	3o		42.601
853	pOT	X	Lp	W	3o		50.742
854	pOT	X	Lp	W	3o		18.125
855	sgME	Y	Hrw	D	2d		1,692.367
X 856	sgME	X	Hrw	D	2d		24.286
857	sgGO	Y	Lsw	D	2d		721.258
858	scLP/R	Y	Lp	M	2sm		17.015
859	scLP/R	X	Lp	M	2sm		13.518
860	scLP/R	Y	Lp	M	2sm		478.611
861	scLP/R	Y	Lp	M	2sm		152.676
862	pOT	X	Lp	W	3o		11.946
863	pOT	X	Lp	W	3o		12.356
864	pOT	X	Lp	W	3o		107.584
865	pOT	X	Lp	W	3o		15.393
866	pOT	X	Lp	W	3o		20.920
867	pOT	X	Lp	W	3o		7.221
868	pOT	X	Lp	W	3o		21.626
869	pOT	X	Lp	W	3o		6.114
870	pOT	X	Lp	W	3o		12.673
871	sgME	Y	Hrw	D	2d		166.134
872	sgGO	X	Lsw	D	2d		15.191

REPORT ON SOIL ATTRIBUTES FOR MAPSHEET "PAKWASH LAKE"

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "WABIGDON LAKE"

LY-	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
1	pOT/cmLP	X	Lp	M	3o		8.177
2	pOT/cmLP	X	Lp	M	3o		5.780
3	pOT	X	Lp	W	3o		9.054
4	pOT	X	Lp	W	3o		23.304
5	RN(tsMG)(cmLP)	X	Lun	D	2ss	2sf	977.405
6	tsMG(RN)	X	Lu	D	2d	3r	358.195
7	RN(tsMG)(cmLP)	X	Lun	D	2ss	2sf	221.242
8	RN(tsMG)	X	Mn	D	2ss		395.237
9	RN(tsMG)	Y	Lun	D	2ss		2,769.876
10	pOT	X	Lp	W	3o		48.639
11	pOT(sAP)	X	Lp	M	3o	2i	141.274
12	RN(cmLP)(tsMG)	X	Lun	D	2sf	2ss	652.261
13	RN(cmLP)(tsMG)	Y	Lun	D	2sf	2ss	1,665.348
14	sAP	X	Lp	W	2p		41.719
15	pOT	Y	Lp	W	3o		63.633
16	pOT	X	Lp	W	3o		192.618
17	pOT	X	Lp	W	3o		21.481
18	RN(tsMG)	X	Lun	D	2ss		1,216.683
19	cmLP(RN)	Y	Lu	D	1f	3r	4,188.398
20	pOT	Y	Lp	W	3o		34.667
21	RN(tsMG)	X	Mj	D	2ss		548.018
22	pOT	X	Lp	M	3o		160.030
23	sgLB(cmLP)/sgG D	Y	Lun	D	2d	1f	392.971
24	cmLP(RN)	Y	Lud	D	1f	3r	19,471.290
25	sAP	X	Lp	M	2i		235.499
26	RN(tsMG)	Y	Mj	D	2ss		404.069
27	pOT(sAP)	X	Lp	M	3o	2i	266.932
28	RN(cmLP)	X	Ln	D	2sf		57.350
29	sAP	Y	Lp	M	2p		1,498.359
30	sgLB/gsbGD(RN)	Y	Lun	D	2d		3,563.954
31	pOT	Y	Lp	W	3o		113.082
32	pOT	Y	Lp	W	3o		47.267
33	pOT/cmLP	X	Lp	W	3o		113.079
34	pOT	Y	Lp	W	3o		32.929
35	pOT	X	Lp	W	3o		53.483
36	pOT	Y	Lp	W	3o		112.113
37	pOT	X	Lp	W	3o		115.678
38	pOT	Y	Lp	W	3o		123.884
39	pOT	Y	Lp	W	3o		551.252
40	pOT(cLP)	Y	Lp	M	3o		27.673
41	pOT	X	Lp	W	3o		27.673
42	RN(cmLP)(tsMG)	Y	Mu	D	2sf	2ss	1,264.734

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "WABIGOON LAKE"

PLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
43	sgLB/sgGD	Y	Lu	D	2d		83.935
44	sgLB/sgGD	Y	Lu	D	2d		79.139
45	sgLB(cmLP)/sgG 0	Y	Lun	D	2d		142.359
46	sgLB(cmLP)/sgG 0	Y	Lun	D	2d		32.958
47	RN(tsMG)	X	Ln	D	2ss		1,277.116
48	pOT	X	Lp	W	3o		153.949
49	pOT	Y	Lp	W	3o		294.255
50	pOT	X	Lp	W	3o		192.879
51	sgLB/sgbGD	Y	Lu	D	2d		241.403
52	RN(csLP)	X	Lun	D	2sf		274.620
53	RN(csLP)	Y	Lun	D	2sf		385.415
54	pOT	X	Lp	W	3o		191.544
55	pOT	Y	Lp	W	3o		295.305
56	pOT	Y	Lp	W	3o		3,961.838
57	pOT	X	Lp	W	3o		443.300
58	RN(cmLP)(tsMG)	Y	Mj	D	2sf	2ss	1,027.264
59	RN(cmLP)(tsMG)	X	Mj	D	2sf	2ss	978.941
60	RN(cmLP)(tsMG)	X	Mj	D	2sf	2ss	2,016.883
61	pOT	X	Lp	M	3o		812.682
62	sgGD(RN)(pOT)	Y	Lu	D(M)	2d	3r	6,257.044
63	pOT	X	Lp	W	3o		56.523
64	RN(tsMG)	Y	Lun	D	2ss		698.486
65	pOT	Y	Lp	W	3o		93.605
66	RN(tsMG)	X	Lun	D	2ss		212.517
67	pOT	X	Lp	W	3o		27.577
68	pOT	X	Lp	W	3o		20.266
69	RN(tsMG)	X	Mn	D	2ss		162.051
70	pOT	X	Lp	M	3o		161.053
71	RR(tsMG)	X	Lnr	D	2ss		486.586
72	sLP(RN)	X	Lu	D	2d	3r	1,646.986
73	RN(tsMG)(pOT)	X	Mu	D	2ss	3o	1,683.233
74	pOT	X	Lp	W	3o		46.792
75	pOT	X	Lp	W	3o		170.079
76	cmLP(RN)(sgD)	Y	Lu	D	1f	3r	2,870.490
77	RN	X	Ln	D	3r		59.422
78	RN	X	Ln	D	3r		30.082
79	sgtME	X	Lkn	D	2d		239.051
80	sgLB	Y	Ls	D	2d		708.807
81	sgtME	Y	Lnw	D	2d		727.142
82	RN(sgtME)	X	Ln	D	2ss		170.434
83	sgbME	X	Lnw	D	2d		886.868

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "WABIGDON LAKE"

PLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)

84	cmLP(RN)	X	Lup	D	1f	3r	2,485.134
85	pOT(sAP)	X	Lup	W	3o	2p	191.261
86	sLP/RP(RN)	X	Lup	D	3vs	3r	1,171.597
87	psAP	X	Lp	M	3o		60.980
88	pOT	X	Lp	W	3o		88.835
89	sgGD(RN)cmLP	Y	Lun	D	2d	3r	570.475
90	pOT	Y	Lpw	W	3o		144.835
91	cmLP(RN)(pOT)	Y	Lun	D(M)	1f	3r	720.154
92	sgLB(tsME)RN	Y	Lts	D	2d		2,364.387
93	pOT	X	Lp	W	3o		166.030
94	sED	X	Lpn	D	2d		724.454
95	pOT	X	Lp	W	3o		304.537
96	cmLP(RN)(pOT)	Y	Lup	D	1f	3r	7,150.153
97	sgLB(tsME)RN	X	Lku	D	2d		1,372.512
98	cmLP(RN)(pOT)	Y	Lun	D(M)	1f	3r	2,955.559
99	pOT(sAP)	Y	Lp	W	3o	2p	186.508
100	cmLP(RN)(pOT)	Y	Lp	D(M)	1f	3r	671.030
101	sgD(cmLP)	Y	Lp	D	2d	1f	253.170
102	sgLB(RN)(sgGD)	Y	Lu	D	2d	3r	391.897
103	RN(tsMG)(cmLP)	Y	Mnj	D(M)	2ss	2sf	3,800.651
104	pOT	X	Lp	W	3o		35.633
105	sgGD	X	Lp	Dh	2d		918.780
106	pOT(pAP)	X	Lp	M	3o		511.022
107	pOT	X	Lp	W	3o		190.491
108	pOT	Y	Lp	W	3o		348.035
109	sgGK	Y	Ln	D	2d		37.330
110	tsMG(RN)(cmLP)	Y	Mu	D	2d	3r	3,756.640
111	cmLP(RN)(pOT)	Y	Lp	M	1f	3r	1,593.129
112	tsMG/RP(RN)	X	Lun	D	3vs	3r	750.812
113	RN(cmLP)(tsMG)	X	Mj	D	2sf	2ss	229.081
114	RN(cmLP)(tsMG)	X	Mj	D	2sf		352.216
115	sgGD(cmLP)	Y	Lu	D	2d	1f	371.560
116	RN(tsMG)	Y	Mn	D	2ss		353.227
117	cmLP(RN)(pOT)	Y	Lp	M	1f	3r	3,541.806
118	RN(tsMG)(cmLP)	Y	Mnj	D	2ss	2sf	2,691.347
119	sgGD(RN)(cmLP)	Y	Lpt	D	2d	3r	1,542.264
120	pOT/cmLP	X	Lp	W	3o		1,263.865
121	sgGD(RN)(cmLP)	X	Lun	D	2d	3r	1,394.824
122	sgLB/sgGD(RN)	X	Lp	D	2d	3r	1,110.586
123	cmLP(RN)(sgLB)	Y	Ludp	D	1f	3r	4,887.854
124	pOT	X	Lp	W	3o		66.436

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "WABIQOON LAKE"

NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
25	RN(csLP)(sgLB)	Y	Mnp	D	2sf	2ss	745.765
126	sgLB/RN(RN)(cm LP)	Y	Lwn	D	2ss	3r	1,545.187
127	pOT	X	Lp	M	3o		72.950
28	gsbGO(RN)	Y	Lwn	D	2d	3r	1,202.277
29	pOT	Y	Lp	W	3o		77.714
130	pOT	X	Lp	W	3o		104.733
31	pOT	X	Lp	W	3o		1,412.146
32	cmLP(RN)	Y	Lunp	D	1f	3r	3,105.460
133	sAP	X	Lp	W	2p		78.417
134	pAP	X	Lp	W	3o		92.598
35	pOT	X	Lp	W	3o		56.244
36	RN(tsMG)	X	Mnw	D	2ss		28.494
137	RN(tsMG)	Y	Mnw	D	2ss		66.459
38	cmLP/sgGO	Y	Lt	D	1f		146.359
39	gOK	Y	Ln	D	2d		204.344
140	RN(tsMG)	Y	Mnw	D	2ss		154.579
141	cmLP(RN)	Y	Lunp	D	1f	3r	7,164.526
142	RN(tsMG)	X	Mnw	D	2ss		70.506
143	RN(tsMG)	X	Mnw	D	2ss		52.121
144	RN(tsMG)	Y	Mnw	D	2ss		22.505
45	cmLP(RN)	X	Lun	D	1f	3r	921.357
46	pOT	X	Lp	w	3o		199.189
147	pOT	X	Lp	w	3o		67.771
148	cmLP(RN)(tsMG)	X	Lun	D(M)	1f	3r	2,011.843
49	sgO	X	Lrn	D	2d		60.820
150	cmLP(RN)(tsMG)	X	Lun	D(M)	1f	3r	863.919
151	cmLP	X	Lw	M	1f		188.926
52	pOT	X	Lp	W	3o		41.948
53	cmLP(RN)	Y	Lup	W	2p	3r	1,285.213
154	pOT	Y	Lp	W	3o		47.730
55	cmLP(RN)(pOT)	Y	Ludp	D(M)	1f	3r	2,469.121
56	RN(cmLP)(tsMG)	Y	Mu	D	2sf		617.237
157	RN(cmLP)(tsMG)	Y	Mu	D	2sf	2ss	461.265
58	sgLB/sgGO	X	Lp	D	2d		231.056
59	pOT	X	Lp	w	3o		52.216
160	RN(tsMG)	Y	Ln	D	2ss		1,113.565
161	sgLB/sgtGO	Y	Lur	D	2d		675.195
62	sgtME	Y	Mnr	D	2d		552.649
63	cmLP(RN)	Y	Lup	D	1f	3r	4,576.513
164	pOT	Y	Lp	W	3o		398.624
165	spAP	X	Lp	W	2p		110.210

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "WABIGDON LAKE"

LY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
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166	pOT	X	Lp	W	3o		38.628
167	pOT	X	Lp	W	3o		43.789
168	pOT	X	Lp	W	3o		180.338
169	pOT	X	Lp	W	3o		56.459
170	sgO(pOT)	X	Lp	M	2i	3o	283.271
171	sgtME	Y	Mnr	D	2d		530.767
172	sgLB/gsgD	X	Lp	D	2d		199.421
173	sgLB/gsgD	Y	Lp	D	2d		130.793
174	pOT	X	Lp	W	3o		34.176
175	pOT	X	Lp	W	3o		106.172
176	sgLB/gsgD	Y	Lp	D	2d		215.946
177	cmLP(RN)	Y	Lp	M	1f	3r	400.527
178	pOT	X	Lp	W	3o		70.393
179	pOT	X	Lp	W	3o		87.354
180	RN(cmLP)(tsMG)	Y	Lun	D(M)	2sf	2ss	34,894.970
181	pOT	X	Lp	W	3o		126.978
182	pOT	X	Lp	W	3o		46.200
183	pOT	X	Lp	W	3o		37.941
184	pOT	X	Lp	W	3o		92.930
185	pOT	X	Lp	W	3o		34.535
186	pOT	Y	Lp	W	3o		87.990
187	pOT	Y	Lp	W	3o		26.896
188	pOT	Y	Lp	W	3o		71.219
189	pOT	X	Lp	W	3o		328.255
190	pOT	X	Lp	W	3o		105.673
191	pOT	X	Lp	W	3o		40.798
192	pAP	Y	Lp	W	3o		225.493
193	cmLP(pOT)	X	Lp	M	1f	3o	447.689
194	pOT	X	Lp	W	3o		168.041
195	RN(tsMG)(pOT)(cmLP)XX	Mn	D(M)	2ss	3o		422.775
196	RN(cmLP)(tsMG)	X	Lun	D(M)	2sf	2ss	892.464
197	pOT/cmLP	Y	Lp	M	3o		413.391
198	slP(RN)	Y	Lup	D	2d	3r	325.995
199	pOT/cmLP	X	Lp	M	3o		78.576
200	pOT/cmLP(RN)	X	Lp	M	3o	3r	24.837
201	pAP	X	Lp	M	3o		45.609
202	sgGK	Y	Lnr	D	2d		100.147
203	sgGE(RN)	X	Lnr	D	2d	3r	370.333
204	cmLP(RN)	X	Lun	D	1f	3r	909.211
205	pAP	X	Lp	W	3o		151.949
206	cmLP(RN)	Y	Lun	D	1f	3r	3,926.088

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "WABIQOON LAKE"

PLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
207	pOT	X	Lp	W	3o		148.482
208	cmLP(RN)	Y	Lun	D	1f	3r	1,272.202
209	cmLP(RN)	Y	Lun	D	1f		281.325
210	tsMH(RN)(cmLP)	X	Mn	D	2d	3r	1,201.518
211	RN(cmLP)(tsMG)	Y	Mn	D	2sf	2ss	5,421.068
212	cmLP(RN)	X	Lun	D	1f	3r	414.942
213	pOT	X	Lp	W	3o		63.469
214	pOT	X	Lp	W	3o		52.291
215	cmLP(RN)	Y	Lun	D	1f	3r	1,610.097
216	cmLP(pOT)	Y	Lp	M	1f	3o	189.719
217	cmLP(tsMG)(RN)	Y	Lpn	D	1f	2d	3,452.369
218	pOT/cmLP	Y	Lp	M	3o		275.565
219	sgGO(cmLP)	Y	Lu	D	2d	1f	154.218
220	psAP	Y	Lp	W	2p		1,861.039
221	sgLB(cmLP)(sgGO)	Y	Lu	D	2d	1f	425.284
222	pOT	Y	Lp	M	3o		332.086
223	sgLB(cmLP)(sgGO)	Y	Lu	D	2d	1f	61.641
224	pOT	Y	Lp	W	3o		59.649
225	sgLB/sgGO	X	Lu	D	2d		577.423
226	RN(cmLP)	Y	Lup	D	2sf		228.171
227	pOT	X	Lp	M	3o		29.409
228	csLP(RN)	Y	Lun	D	1f	3r	2,762.509
229	spAP	X	Lp	W	2p		53.142
230	pAP	X	Lp	W	3o		52.826
231	pAP	X	Lp	W	3o		78.833
232	RN(cmLP)(tsMG)	Y	Lup	D	2sf	2ss	3,978.735
233	cmLP(RN)	Y	Ldp	D	1f	3r	1,469.452
234	pOT	X	Lp	W	3o		78.835
236	RN(tsMG)	X	Mrn	D	2ss		3,079.985
237	gGO	X	Lt	D	2d		47.259
238	cmLP(RN)	Y	Lp	M	1f	3r	363.001
239	RN(tsMG)(sgGO)	Y	Lnd	D	2ss		1,461.321
240	cmLP	X	Lp	M	1f		200.576
241	RN(tsMG)(cmLP)	X	Mn	D	2ss	2sf	21,497.770
242	pOT	X	Lp	W	3o		322.816
243	pOT	X	Lp	W	3o		277.992
244	RN(tsMG)(cmLP)	X	Lu	D	2ss	2sf	1,729.252
245	pOT	X	Lp	W	3o		83.162
246	pOT/cmLP	X	Lp	M	3o		298.189
247	sgLB(tsME)	X	Lu	D	2d		832.021
248	cmLP(RN)(pOT)	X	Lun	D(M)	1f	3r	2,093.089

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "WABIGOOD LAKES"

LY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
49	RP(cmLP)	X	Lu	D	2sf		103.532
50	RN(tsmG)	Y	Lnj	D	2ss		799.868
251	RN(tsmG)	X	Ln	D	2ss		304.745
52	csLP	Y	Lp	M	1f		75.089
53	RP(cmLP)	Y	Lu	D	2sf		3,104.053
254	csLP	Y	Lp	M	1f		273.015
255	RR(cmLP)	X	Mr	D	2sf		253.016
56	RR(cmLP)	X	Mr	D	2sf		627.784
257	RPcmLP	X	Lu	D	2sf		825.783
258	RRcmLP	X	Mr	D	2sf		6,041.507
59	cmLP/RN(RN)(pOT)	X	Lu	D(M)	3vs	3r	4,286.659
60	cmLP(RN)	X	Lp	M	1f	3r	321.628
261	pOT(pAP)	X	Lp	W	3o		83.142
62	RR(RN)	X	Mrn	D	3r		902.856
63	cmLP(RN)(pOT)	X	Lpu	M	1f	3r	2,762.216
264	cmLP(pOT)	X	Lp	M	1f	3o	166.617
265	RN(cmLP)(pOT)	X	Mn	D(M)	2sf	3o	1,792.324
66	sgbME(RN)	X	Lpkn	D	2d	3r	717.785
267	pOT	X	Lp	W	3o		137.656
268	RN(cmLP)(pOT)	X	Mn	D(M)	2sf	3o	197.234
69	sgGD	X	Lpk	D	2d		280.629
70	RN	X	Hn	D	3r		431.739
271	RN(tsmG)(cmLP)	X	Mn	D	2ss	2sf	1,117.560
272	sgGE(tsgbME)	X	Mn	D	2d		415.480
73	RN(sGD)	X	Mnp	D	2ss		1,040.803
274	pOT	X	Lp	W	3o		63.522
275	pOT	X	Lp	W	3o		142.360
76	pOT	X	Lp	W	3o		153.596
277	sGD(RN)(pOT)	X	Lpd	D(M)	2d	3r	356.064
278	pOT	X	Lp	W	3o		81.812
79	pOT	X	Lp	W	3o		112.448
80	pOT	X	Lp	W	3o		133.597
281	pOT	X	Lp	W	3o		72.782
282	sgGD	X	Lp	M	2i		201.098
83	sgGD	X	Lp	D	2d		440.184
284	sgGE(RN)	X	Lkn	D	2d	3r	447.919
285	cmLP(RN)	X	Lpnd	D	1f	3r	653.348
86	sgGD	X	Lp	D	2d		110.557
287	sgbME(sGE)	Y	Mru	D	2d		3,778.418
288	sgbGD(RN)	Y	Luk	D	2d	3r	1,440.655
89	pOT	X	Lp	W	3o		70.231

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "WABIQOON LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
290	gGO	X	Lt	D	2d		51.204
291	sgGO	X	Ln	D	2d		475.502
292	sgGO(RN)(tsMG)	Y	Mn	D	2d	3r	1,788.564
293	RN(cmLP)(tsMG)	X	Mn	D	2sf	2ss	4,494.425
294	cmLP(RN)(pOT)	X	Ldp	M	1f	3r	233.249
295	cmLP(RN)(pOT)	X	Ldp	M	1f	3r	90.327
296	pOT	X	Lp	W	3o		22.086
297	sgGO(RN)(sED)	Y	Lww	D	2d	3r	2,775.562
298	RN(cmLP)(tsMG)	Y	Mn	D	2sf	2ss	693.601
299	sgLB(cmLP)(sgGO)	Y	Lu	D	2d	1f	873.178
300	RN(tsMG)(cmLP)	Y	Mn	D(M)	2ss	2sf	5,134.845
301	cmLP(RN)(pOT)	Y	Ldp	D(M)	1f	3r	2,740.667
302	RN(tsMG)(cmLP)	Y	Mn	D(M)	2ss	2ss	382.395
303	pOT/cmLP	X	Lp	W	3o		176.753
304	pOT/cmLP	X	Lp	W	3o		69.993
305	sgGO(RN)(pOT/cm LP)	Y	Lu	D(M)	2d	3r	3,410.311
306	cmLP(RN)(sgGO)	X	Lnp	M	1f	3r	738.749
307	pOT(sED)/sgGO	X	Lp	M	3o	2d	2,896.676
308	psAP	Y	Lp	M	3o		209.448
309	pOT	X	Lp	W	3o		228.123
310	sgGO(RN)(tsMG)	X	Mn	D	2d	3r	220.107
311	pOT	X	Lp	W	3o		136.293
312	RN(tsMG)	Y	Mn	D	2ss		207.812
313	tsMG(RN)(SgGO)	Y	Mn	D	2d	3r	7,644.951
314	cmLP(pOT)	X	Lp	M	1f	3o	402.442
315	cmLP(pOT)	X	Lp	D	1f	3o	55.841
317	RN(tsMG)(cmLP)	X	Mn	D	2ss	2sf	1,411.069
318	mLP	X	Lp	W	2p		94.018
319	RN(tsMG)	Y	Mn	D	2ss		631.006
320	pOT	Y	Lp	W	3o		182.430
321	sgGO	X	Lpk	D	2d		2,120.154
322	sgGK(ME)	X	Mr	D	2d		175.385
323	pOT	X	Lp	W	3o		224.512
324	pOT	X	Lp	W	3o		28.283
325	pOT	X	Lp	W	3o		50.032
326	RN(cmLP)(tsMG)	Y	Mn	D(M)	2sf	2ss	3,560.727
327	sgGO(RN)	Y	Lun	D	2d	3r	503.531
328	RN(tsMG)(pOT)	Y	Mn	D	2ss	3o	4,277.957
329	RN(sGO)(pOT/cm LP)	Y	Mn	D(M)	2ss	3o	2,909.625
330	pOT(sgGO)	X	Lp	M	3o	2d	95.823
331	RN(tsMG)	X	Lu	D	2ss		1,954.146

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PLOT NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
332	sgGD	X	Lup	D	2d		125.808
333	pOT	X	Lp	W	3o		12.314
334	sgGD	X	Lup	D	2d		56.610
335	pOT(sGD)(cmLP)	X	Lp	M	3o	2d	488.844
336	msAP	X	Lp	W	2p		180.500
337	pOT(cmLP)	Y	Lu	M	3o	1f	673.570
							=====
							354,438.857

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HEAVEN LAKE"

FULLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
1	tsMG(sGO)(pOT)	X	Lpu	D(W)	2d		1,767.047
2	pOT	X	Lp	W	3o		109.050
3	tsMG/RN(RN)(pOT)	X	Mn(Lp)	D(W)	2ss	3r	4,712.520
4	tsMH(RN)(pOT)	X	Mn(Lp)	D(W)	2d	3r	925.631
5	pOT	X	Lp	W	3o		178.954
6	gsGE	X	Hrs	D	2d		127.189
7	pOT	X	Lp	W	3o		319.676
8	gsGE	X	Hrs	D	2d		472.898
9	tsMH(tsMG/R)	X	Mrn	D	2d	2ss	492.449
10	tsMH(tsMG/R)	X	Mrn	D	2d	2ss	66.716
11	tsMG/RN(pOT)	X	Ln(Lp)	D(W)	2ss	3o	6,360.295
12	tsMG/RN(pOT)	X	Ln(Lp)	D(W)	2ss	3o	627.188
13	tsMG/RN(pOT)	X	Ln(Lp)	D(W)	2ss	3o	164.778
14	pOT	X	Lp	W	3o		193.893
15	pOT(tsMG/R)	X	Lpn	W(D)	3o	2ss	145.126
16	pOT(tsMG/R)	X	Lpn	W(D)	3o	2ss	2,327.285
17	sGO(pOT/sGO)	X	Lp	Dh(W)	2d	3o	115.767
18	pOT/sAP	X	Lp	W	3o		548.008
19	tsMG/RN(pOT)	X	Ln(Lp)	D(W)	2ss	3o	1,386.712
20	sAP	X	Lp	W	2p		52.885
21	pOT/sGO(sAP)	X	Lp	W	3o	2p	2,113.761
22	sgbME	X	Mr	D	2d		222.714
23	pOT(tsMH)	X	Lp(Ln)	W(D)	3o	2d	449.843
24	pOT(tsMG/R)	X	Lpn	W(D)	3o	2ss	367.271
25	sAP	X	Lp	W	2p		663.911
26	tsMH(sGO)(pOT)	X	Ln(Lp)	D(W)	2d		3,382.442
27	pOT/sAP	X	Lp	W	3o		525.467
28	pOT	X	Lp	W	3o		234.399
29	pOT(tsMG/R)	X	Lp(Ln)	W(D)	3o	2ss	290.747
30	tsMG/R	X	Lu	M	2sm		2,262.667
31	pOT	X	Lp	W	3o		153.764
32	pOT	X	Lp	W	3o		127.928
33	pOT	X	Lp	W	3o		335.961
34	pOT	X	Lp	W	3o		89.542
35	tsMG	X	Lpu	D	2d		2,343.732
36	tsMG	X	Lpu	D	2d		291.003
37	tsMG	X	Lpu	D	2d		200.926
38	tsMG	X	Lpu	D	2d		77.049
39	pOT	X	Lp	W	3o		293.123
40	pOT(tsMG/R)	X	Lp(Ln)	W(D)	3o	2ss	462.938
41	sgGO(tsMG)	X	Lpu	M	2i		2,563.573

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HEAVEN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
43	pOT/sGO(sGO)	X	Lp	W	3o	2p	558.790
44	pOT/sGO(sGO)	X	Lp	W	3o	2p	29.267
45	sGO(tsMG)(gsGE)	Y	Lpur	M	2i		2,898.391
46	pOT/sGO	X	Lp	W	3o		568.159
47	sGO-GE	X	Lpk	D	2d		5,118.569
48	pOT/sLP	X	Lp	W	3o		1,082.362
49	sGO-GE	X	Lpk	D	2d		240.283
50	gsbGE-GK	X	Hrk	D	2d		1,904.796
51	sgGO	X	Lpu	D	2d		1,655.606
52	tsbME	X	HKru	D	2d		737.814
53	pOT/sGO	X	Lp	W	3o		1,302.220
54	tsMG(tsMG/R)	X	Mun	D	2d	2ss	1,490.139
55	sGO	X	Lsd	M	2i		414.112
56	pOT	X	Lp	W	3o		188.375
57	pOT/sAP	X	Lp	W	3o		376.604
58	RN(tsMH)(pOT)	X	Mn(Lp)	D(W)	2ss	2d	1,231.133
59	pOT/sGO(tsMG)	X	Lp(Lrn)	W(D)	3o	2d	2,548.057
60	RN(tsMG/RN)	Y	Mn	D	2ss		4,322.813
61	sLP(tsMG/R)	Y	Lp	W(D)	2p	2ss	3,233.496
62	tsMH/R	X	HnM	D	2ss		443.957
63	tsMH/R	X	Mn	D	2ss		1,763.415
64	pOT	X	Lp	W	3o		249.379
65	pOT	X	Lp	W	3o		181.860
66	tsMG	X	Mru	D	2d		208.990
67	tsbMG/R	X	Hn	D	2ss		272.744
68	tsMG(pOT)	X	L	D(W)	2d	3o	1,629.984
69	pOT	X	Lp	W	3o		157.343
70	sLP	Y	Lp	Dh-W	1c	2p	4,705.264
72	tsMH(tsMG/R)	X	Mrn	D	2d	2ss	64.994
73	tsbME	Y	Lu	D	2d		809.751
74	tsMG(mLP)	X	Mn(Lp)	D(Dh)	2d	1c	102.279
75	gsLD	X	Lk	D	2d		130.748
76	RN(tsMG/R)	X	Mnr	D	3vs	2ss	1,922.736
77	pOT(tsMG)	X	Lpu	W	3o	2p	111.435
78	pOT(tsMG)	X	Lpu	W	3o	2p	767.021
79	sLP/tsMG	X	Lp	Dh	2d		2,025.909
80	tsMH	X	Mn-Hn	D	2d		2,223.907
81	pOT	X	Lp	W	3o		211.331
82	tsMG(tsMH)	X	M(L)	D	2d		3,629.810
83	RN(tsMG/RN)	X	Mn	D	3vs	2ss	328.898
84	sgGE	X	Lr	D	2d		212.507

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HEAVEN LAKE"

I JULY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
85	sLP(tsMH)	X	Lun	D	2d		1,549.252
86	sLP/tsMG	X	Lp	Dh	2d		604.308
87	pOT/sLP	X	Lp	W	3o		950.553
88	tsgbME	X	Lr	D	2d		206.744
89	pOT/sLP	X	Lp	W	3o		167.079
90	tsMH(tsMG)	Y	Mn(Hn)	D	2d		3,470.752
91	pOT/sLP	X	Lp	W	3o		169.628
92	pOT/sLP	X	Lp	W	3o		278.974
93	pOT/sLP	X	Lp	W	3o		369.769
94	sLP(pOT/sLP)	X	Lp	W	2p	3o	1,356.835
95	gsGE	X	Mr	D	2d		619.473
96	tsMG/RP	Y	Lpu	D	2ss		4,094.891
97	gsGE	Y	Mr	D	2d		201.997
98	tsMG/RP(RP)	Y	Lru	D	2ss	3r	4,807.686
99	pOT	X	Lp	W	3o		206.938
100	tsMG(RN)	X	Mn	M	2i	3vs	316.633
101	RN(tsMG/RN)	Y	Hrn	D	3vs		1,893.637
102	gsGE	Y	Mr	D	2d		314.960
103	gsGE(sGO)	Y	Mr	D	2d		827.580
104	tsMG/RP	Y	Lpn	D	2ss		2,405.785
105	pOT	Y	Lp	W	3o		234.189
106	pOT	X	Lp	W	3o		286.090
107	tsMG	X	Lp	D	2d		267.985
108	pOT	X	Lp	W	3o		1,010.906
109	tsMG/R	X	Mnr	M	2sm		477.445
110	pOT	X	Lp	W	3o		589.233
111	sGO	X	Lpd	D	2d		646.048
112	tsMG/RN(RN)	X	Mn	M	2sm	3vs	314.278
113	sAP	X	Lp	W	2p		360.231
114	tsMG/RN(RN)	X	Mn	M	2sm	3vs	2,592.472
115	pOT	X	Lp	W	3o		87.255
116	sgGE	X	Lr	D	2d		99.646
117	sGO(tsMG/R)	X	Lp(Ln)	W(D)	2p	2ss	982.230
118	gsGE	X	Mr	D	2d		364.254
119	sGO	X	Lp	Dh	2d		299.101
120	RN(tsMG/R)	Y	Mn	D	3vs		1,072.362
121	sGO	Y	Lp	W	2p		1,001.922
122	pOT	Y	Lp	W	3o		157.366
123	RN(tsMG/R)	Y	Lpu	M	3vs		2,651.147
124	sGO	Y	Lp	W	2p		891.201
125	sGO	X	Lp	W	2p		288.263

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HEAVEN LAKE"

JULY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
126	tsMG/R(RN)	Y	Hn	D	2ss	3r	3,566.562
127	RN(tsMG/RN)	Y	Hn	D	3vs		5,007.240
129	tsMG/R	X	Mu	M	2sm		1,941.494
130	sAP	X	Lp	W	2p		146.295
131	sGO	X	Lp	D	2d		301.012
132	pOT	X	Lp	W	3o		145.055
133	pOT	X	Lp	W	3o		124.268
134	pOT	X	Lp	W	3o		342.667
135	tsMG/R(RN)	X	Ln	D	2ss	3vs	6,056.970
136	pOT	X	Lp	W	3o		262.195
137	sGO	X	Lp	W	2p		44.719
138	pOT	X	Lp	W	3o		128.567
139	pOT/sLP	X	Lp	W	3o		719.509
140	RN	X	Mn	D	3r		219.885
141	pOT/sLP	X	Lp	W	3o		22.014
142	tsMG/R(RN)	X	Mnr	M	2sm	3vr	3,918.118
143	tsMG/R(sGO/R)	X	Lpu	D	2ss		1,154.625
144	tsMG/R(sGO)	X	Lp	W	2sm	2p	583.772
145	pOT/sGO	X	Lp	W	3o		2,223.790
146	pOT	X	Lp	W	3o		170.974
147	pOT	X	Lp	W	3o		133.111
148	pOT	X	Lp	W	3o		95.631
149	sAP	X	Lp	W	2p		335.963
150	pOT	X	Lp	W	3o		376.111
151	pOT/sGO(tsMG/R)	X	Lp	W(D)	3o	2ss	921.903
152	pOT	X	Lp	W	3o		234.873
153	pOT/sGO	X	Lp	W	3o		495.925
154	tsMG/R(sGO)	X	Ln(Lp)	D(W)	2ss	2p	523.158
155	gsGE	X	Lr	D	2d		320.804
156	sGO(tsMG/RN)	X	Lp(Ln)	W(D)	2p	2ss	1,956.651
157	sGO(tsMG)	X	Lp(Ln)	W(D)	2p	2d	1,095.432
158	tsMG/RN(sGO)	X	Mn(Lp)	D(W)	2ss	2p	720.869
159	tsMG/R	X	Lu	D	2ss		3,532.820
160	pOT/sGO(sGO)	X	Lp	W(Dh)	3o	2d	1,687.076
161	sGO	X	Lp	W	2p		131.696
162	sGO	Y	Lp	W	2p		895.210
163	tsMG/R(sGO)	Y	Mr(Lp)	D(W)	2ss	2p	7,662.114
164	tsMG/R(sGO)	X	Mr(Lp)	D(W)	2ss	2p	91.873
165	tsMG/R(sGO)	X	Mr(Lp)	D(W)	2ss	2p	80.021
166	tsMG/R(sGO)	X	Mr(Lp)	D(W)	2ss	2p	60.861
167	sGO	Y	Lp	W	2p		431.834

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HEAVEN LAKE"

I JLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
168	sgO(tsMG/R)	X	Lp(Mn)	W(D)	2p	2ss	815.099
169	pOT/sgO	X	Lp	W	3o		157.226
170	pOT/sgO	X	Lp	W	3o		422.640
171	pOT/sgO	X	Lp	W	3o		205.679
172	pOT/sgO	X	Lp	W	3o		244.154
173	RN(tsMG/RP)	X	Mnp	D	3vs	2ss	4,416.719
174	pOT	X	Lp	W	3o		148.585
175	pOT(tsMH/R)	X	Lp(Mn)	W(D)	3o	2ss	555.662
176	tsMG/R(pOT)	X	Mnr(Lp)	D(W)	2ss	3o	7,855.206
177	pOT	X	Lp	W	3o		251.892
178	tsMG/R(RN)(sgO)	X	Mnr(Lp)	M(W)	2sm	3vs	1,921.285
179	tsMH(tsMG/R)	X	Mn	D	2d	2ss	2,293.276
180	pOT	X	Lp	W	3o		197.035
181	tsMG/R(RN)	X	Mnr	M	2sm	3vs	2,984.205
182	pOT	X	Lp	W	3o		203.662
183	pOT(tsMH/R)	X	Lp(Mn)	W(D)	3o	2ss	578.028
184	pOT(tsMH/R)	X	Lp(Mn)	W(D)	3o	2ss	13.432
185	tsMH(tsMG/R)(pOT)	X	Mnr(Lp)	M(W)	2i	2ss	406.745
186	tsMH(tsMG/R)(pOT)	X	Mnr(Lp)	M(W)	2i	2ss	2,456.531
187	pOT	X	Lp	W	3o		79.175
188	pOT	X	Lp	W	3o		176.935
189	tsMG/R(pOT)	X	Mr(Lp)	W	2sm	3o	2,529.617
190	tsMG/R	X	Lp	D	2ss		2,804.774
191	pOT	X	Lp	W	3o		219.604
192	sgGE	X	Mr	D	2d		435.446
193	tsMG/R(pOT)	X	Mr(Lp)	D(W)	2ss	3o	2,454.790
195	smAP	X	Lp	W	2p		422.470
196	tsMG/R(pOT)	X	Mr(Lp)	D(W)	2ss	3o	1,307.906
197	pOT/sgO	X	Lp	W	3o		573.348
198	tsMH(RN)	X	Mn	D	2d	3vs	908.737
199	tsMH(sgGK)	Y	M-H	D	2d		2,541.491
200	tsbME	X	Hr	D	2d		397.713
201	sgGO	X	Lpr	D	2d		498.344
202	sLP	Y	Lp	W	2p		263.141
203	sgGO	Y	Mn	D	2d		91.836
204	sgGO-GK	Y	Lpk	D	2d		1,260.288
206	pOT	X	Lp	W	3o		112.946
207	RN(sgGK)	Y	Hn	D	2ss	2d	425.962
208	RR(tsMG/RR)	Y	Lr	D	3vs		855.495
209	sgO(sAP)	Y	Lpu	D	2d		321.008
210	sgGE(RR)	X	Hr	D	2d		907.335

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HEAVEN LAKE"

JLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
211	RR(tsMG/RR)	Y	Mr	D	3vs		3,101.238
212	tsMG/R(sGD)	X	Mu	M	2sm	2p	400.421
213	sgGD	X	L-M	D	2d		315.667
214	tsMG	X	Lpu	D	2d		751.516
215	pOT/sAP	X	Lp	W	3o		941.396
216	RN(tsMG/R)	X	Hr	D	3vs	2ss	984.047
217	sgGE	X	Lnr	D	2d		316.741
218	sgGD	X	Lps	D	2d		757.765
219	pOT	X	Lp	W	3o		1,309.750
220	tsMG/R(sGD)	X	Mu	M	2sm	2p	3,585.100
221	sgGD	X	Lp	D	2d		156.639
222	tsMG/RL	X	Mn	M	2sm		232.570
223	CW/tsMG	X	Hs	D	2d		184.718
224	RN(tsMG/R)	Y	Hn	D	3vs		240.429
225	sgGE-GK(sGD)	Y	Hn	D	2d		1,108.482
226	RR(tsMG/RR)	Y	Mr	D	3vs		266.332
227	RN(tsMG/R)	Y	Hn(Mr)	D	3vs		5,486.840
228	tsMG/R(pOT)	Y	Mr(Lp)	D(W)	2ss	3o	1,566.460
229	pOT/sGD(tsMG)	Y	Lp	W(D)	3o	2d	1,107.573
230	tsMG/R	Y	Lu	D	2ss		684.415
231	sgGE	Y	Lr	D	2d		456.439
232	sGD	X	Lp	W	2p		522.071
233	pOT/sGD	X	Lp	W	3o		231.372
234	tsMG/RP(RR)	X	Lpu(Mr)	D	2ss	2vr	1,378.115
235	RN	X	Mn	D	3r		206.655
236	pOT	X	Lp	W	3o		256.141
237	RN(tsMG/R)	X	Mn	D	3vr	2ss	864.088
238	RN(tsMG/RN)	X	Mn	D	3vr	2ss	8,193.762
239	tsMG/R(RN)	Y	Lpun	D	2ss	3r	3,553.057
240	tsMG/R(sLP)	X	Ln(Lp)	D	2ss	2d	5,619.901
241	tsMG/R(sLP)	X	Ln(Lp)	D	2ss	2d	37.091
242	RN(tsMG/RN)(RR)	Y	Hrs	D	3vs		1,586.586
243	sgGD(tsMG/R)	Y	Lpc	D	2d	2ss	187.771
244	sgGK(tsMH)	X	Hn	D	2d		605.474
245	tsMG	X	Lpu	D	2d		497.341
246	tsMG(sLP)	Y	Lpu	D(W)	2d	2p	4,700.553
247	tsMG/R	X	Lp	D	2ss		289.432
248	tsMG/R(pOT)	X	Mr(Lp)	D(W)	2ss	3o	312.660
249	sgGK	Y	Ln	D	2d		215.926
250	sgGD-GK	Y	L(M)	D	2d		961.407
251	pOT/sLP	X	Lp	W	3o		545.118

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HEAVEN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
252	CW/tsMG	X	Hs	D	2d		344. 671
253	RR	X	H	D	3r		312. 720
254	sgGE	Y	Lr	D	2d		251. 129
255	RR(tsMG)	X	Ms	D	2ss	2d	259. 230
256	sLP	X	Lp	D	2d		100. 715
257	CW/tsMG	X	Ms	D	2d		51. 456
258	tsMH/R(sgGK)	X	Mn	D	2ss	2d	591. 089
260	CW/tsMG	X	Hs	D	2d		69. 020
261	CW/tsMG	X	Hs	D	2d		133. 048
262	tsMG/RL(RL)	X	Lu	D	2ss	3vs	404. 109
263	tsMG/RL(RL)	X	Lu	D	2ss	3vs	170. 196
264	pOT	X	Lp	W	3o		115. 226
265	tsMG/RP	X	Lpu	D	2ss		157. 474
266	CW	X	Hs	D	2d		74. 492
267	tsMG/RP	X	Lp	D	2ss		1, 008. 973
268	CW	X	Hs	D	2d		107. 758
269	pOT	X	Lp	W	3o		89. 624
270	pOT	X	Lp	W	3o		103. 719
271	CW	X	Hs	D	2d		77. 414
272	RL(tsMG/RL)	X	Mu	D	3vs	2ss	2, 638. 513
273	sLP	X	Lp	M	2i		517. 077
274	tsMG	X	Lr	D	2d		250. 142
275	sgGE	X	Mr	D	2d		561. 415
276	pOT	X	Lp	W	3o		297. 955
277	tsgbMH(gsgK)	X	Mn	D	2d		815. 530
278	tsMG	Y	Mr	D	2d		2, 456. 166
279	pOT	X	Lp	W	3o		123. 532
280	pOT	X	Lp	W	3o		140. 722
281	pOT	X	Lp	W	3o		175. 067
282	pOT	X	Lp	W	3o		492. 426
284	tsMG(tsMG/RN)	Y	Hn	D	2d	2ss	2, 397. 887
285	pOT	X	Lp	W	3o		46. 981
286	pOT	X	Lp	W	3o		95. 296
287	pOT	X	Lp	W	3o		74. 603
288	tsMG(tsMG/RN)	Y	Hn	D	2d	2ss	3, 397. 367
289	tsMG(sGO)	Y	Lp	D(W)	2d	2p	675. 523
290	tsMG/R	X	Lp	D	2ss		651. 749
291	tsMG(tsMG/RR)	Y	Mru	D	2d	2ss	1, 479. 703
292	RR(tsMG/RR)	Y	Lpur	D(M)	3vs		6, 622. 814
293	RR(tsMG/RR)	X	Lpur	D(M)	3vs	2sm	1, 185. 368
294	RR(tsMG/RR)	X	Lpur	D(M)	3vs	2sm	62. 077

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HEAVEN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
295	pOT	X	Lp	W	3o		154.462
296	RN(tsMG/RN)	X	Mn	D	3vs	2ss	1,117.850
297	tsMG/RR	X	Lr	M	2sm		12,758.700
298	pOT/tsMG	X	Lpu	W	3o		441.290
299	tsMG/RR	X	Lr	M	2sm		1,286.571
300	pOT(tsMG/R)	X	Lp(Mr)	W(D)	3o		440.585
301	pOT	X	Lp	W	3o		1,326.847
302	pOT	X	Lp	W	3o		794.285
303	pOT	X	Lp	W	3o		84.467
304	sAP	X	Lp	W	2p		1,534.596
305	RR(tsMG/R)	X	Mrn	D(M)	3vs	3sm	11,028.430
306	pOT	X	Lp	W	3o		109.308
307	pOT	X	Lp	W	3o		654.646
308	pOT	X	Lp	W	3o		329.577
309	pOT(tsMG/R)	X	Lpr	W(D)	3o	2ss	1,349.179
310	RR(tsMG/R)(pOT)	X	Mr(Lp)	D(W)	3vs	2ss	3,999.394
311	pOT/sGO	X	Lp	W	3o		189.422
312	pOT/sGO	X	Lp	W	3o		424.258
313	pOT	X	Lp	W	3o		94.080
314	sLP	X	Lp	Dh	2d		140.778
315	sAP	X	Lp	W	2p		408.122
316	sGO(sAP)	X	Lp	W	2p		1,469.612
317	sGO	Y	Lp	W	2p		525.842
318	pOT	X	Lp	W	3o		563.773
319	pOT	X	Lp	W	3o		286.455
320	pOT(tsMH)	X	Lp(Ln)	W(D)	3o	2d	761.692
321	tsMG(tsMG/R)	X	Mn	D	2d	2ss	12,864.830
322	pOT	X	Lp	W	3o		309.949
323	pOT	X	Lp	W	3o		308.751
324	pOT	X	Lp	W	3o		127.565
325	tsMH(sgGK)(RN)	X	Mn	M	2i		3,900.390
326	pOT	Y	Lp	W	3o		186.533
327	tsMG/R(pOT)	Y	Lu(Lp)	D(W)	2ss	3o	226.135
328	pOT/sGO(sGO)	X	Lp	W(Dh)	3o	2d	132.886
330	tsMG/R(pOT/sGO)	Y	Ln(Lp)	D(Dh)	2ss	3o	3,344.858
331	pOT/sGO(sGO)	Y	Lp	W(Dh)	3o	2d	59.377
332	pOT	X	Lp	W	3o		86.224
333	pOT	X	Lp	W	3o		171.601
335	pOT	X	Lp	W	3o		311.333
338	pOT	Y	Lp	W	3o		136.317
339	pOT	X	Lp	W	3o		277.495

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HEAVEN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
1	=====	=====	=====	=====	=====	=====	=====
340	pOT	X	Lp	W	3o		454.613
341	pOT/sGO	Y	Lp	W	3o		220.234
342	tsMG/R(sGO)	Y	Lnp	W(D)	2sm	2d	1,435.913
347	tsMG/R	Y	Mnr	D	2ss		3,369.155
348	pOT	X	Lp	W	3o		396.786
349	pOT	Y	Lp	W	3o		125.275
350	tsMG/R	X	Ln	D	2ss		775.435
351	tsMG/R(pOT/tsM G)	X	Lpu	D(W)	2ss	3o	156.531
352	pOT	X	Lp	W	3o		91.785
							=====
							380,711.483

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "SEINE RIVER"

LY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
1	tsMG(RN)(pOT)	X	Mn	D	2d	3r	173.809
2	RN(tsMG)(pOT)	X	Mnjr	D(M)	2ss	3o	3,685.082
3	RR(tsMG)	X	Mnj	D	2ss		1,805.995
4	pOT/cmLP	X	Lp	M	3o		443.951
5	RN(tsMG)(pOT)	X	Mnj	D(M)	2ss	3o	248.504
6	tsMG(RN)(pOT)	X	Mn	D(M)	2d	3r	3,086.567
7	pOT(sGO)(RN)	X	Lpn	M	3o	2d	700.603
8	pOT	X	Lp	M	3o		308.992
9	RN(tsMG)(pOT)	X	Mn	D	2ss	3o	4,944.813
10	pOT	X	Lp	M	3o		706.731
11	pOT	X	Lp	M	3o		78.820
12	RN(tsMG)(pOT)	X	Mn	D	2ss	3o	113.907
13	RN(tsMG)	X	Mnj	D	2ss		426.647
14	RN(tsMG)	X	Mnj	D	2ss		26,166.300
15	RN(tsMG)	X	Mnj	D	2ss		280.594
16	pOT	X	Lp	M	3o		143.825
17	RN(tsMG)	X	Lp	M	2sm		106.011
18	RN(tsMG)(pOT)	X	Mn	D(M)	2ss	3o	5,686.912
19	pOT	X	Lp	M	3o		69.661
20	pOT	X	Lp	W	3o		47.973
21	RN(tsMG)(pOT)	X	Mn	D(M)	2ss	3o	5.624
22	sgGO	X	Ln	D	2d		114.626
23	pOT	X	Lp	W	3o		56.901
24	RN(tsMG)(pOT)	X	Mnjr	D(M)	2ss	3o	7,964.587
25	RN(tsMG)(pOT)	X	Mnjr	D(M)	2ss	3o	339.381
26	RN(tsMG)(pOT)	X	Mnjr	D(M)	2ss	3o	57.619
27	RN(tsMG)(pOT)	X	Mnjr	D(M)	2ss	3o	152.170
28	pAP	X	Lp	W	3o		60.312
29	pOT	X	Lp	M	3o		160.783
30	pOT	X	Lp	M	3o		202.184
31	pOT	X	Lp	M	3o		21.617
32	pOT	X	Lp	M	3o		62.782
33	pOT	X	Lp	W	3o		57.566
34	pOT	X	Lp	W	3o		74.025
35	pOT	X	Lp	W	3o		136.214
36	RN(tsMG)(pOT)	X	Mnj	D(M)	2ss	3o	4,898.177
37	pOT	X	Lp	M	3o		130.324
38	pAP	X	Lp	M	3o		300.220
39	sAP	X	Lp	M	2d		302.468
40	RN(cmLP)(tsMG)	X	Mn	D	2sf	2d	2,831.593
41	pOT/cmLP(RN)	X	Lp	M	3o	3r	4,510.355

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "SEINE RIVER"

PLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
42	sgGO(RN)(tsMG)	X	Lu	D	2d	2ss	303.671
43	sLP	X	Ln	D	2d		153.501
44	scLP(pOT)(RN)	X	Lpd	M	1c	3o	3,088.699
45	sgGK	X	Lp	D	2d		145.659
46	sgGO(RN)(tsMG)	X	Mn	D	2d	2ss	1,557.714
47	pOT	X	Lp	W	3o		173.933
48	RN(tsMG)(pOT)	X	Mn	D(M)	2ss	3o	7,276.888
49	pOT	X	Lp	W	3o		127.670
50	pOT	X	Lp	W	3o		52.662
51	pOT	X	Lp	W	3o		63.727
52	pOT	X	Lp	M	3o		362.581
53	pOT/cmLP	X	Lp	M	3o		245.144
54	RN(tsMG)(pOT)	X	Mn	D(M)	2ss	3o	52.238
55	RN(tsMG)(cmLP)	X	Mnu	D	2ss	1c	1,130.837
56	RN(cmLP)(tsMG)	X	Mn	D	2sf	2d	170.460
57	RN(cmLP)(tsMG)	X	Mn	D	2sf	2d	1,481.089
58	RN(cmLP)(tsMG)	X	Mn	D	2sf	2d	399.148
59	RN(cmLP)(tsMG)	X	Mn	D	2sf	2d	314.029
60	pOT	X	Lp	W	3o		232.298
61	sgtGK(RN)	X	Mr	D	2d	3r	1,385.175
62	pOT	X	Lp	M	3o		122.744
63	pOT	X	Lp	M	3o		37.639
64	pOT	X	Lp	M	3o		141.098
65	RN(tsMG)(cmLP)	X	Mnu	D	2ss	1f	6,513.217
66	pOT/cmLP(RN)	X	Lp	M	3o	3r	68.506
67	RN(tsMG)(pOT)	X	Mn	D(m)	2ss	3o	121.037
68	sgLB	X	Lt	D	2d		29.008
69	sgLB	X	Lt	D	2d		35.282
70	sgGK(RN)	X	Mn	D	2d	3r	648.957
71	pOT	X	Lp	W	3o		40.672
72	RN(tsMG)(pOT)	X	Mnj	D	2ss	3o	1,029.474
73	pOT	X	Lp	W	3o		70.535
74	pOT	X	Lp	W	3o		145.508
75	RN(sgtGK)	X	Mn	D	2ss		201.349
76	sAP(sGO)	X	Lp	M	2p	2d	707.299
77	sgGO(RN)	Y	Mn	D	2d	3r	1,813.827
78	RN(sgtGK)	X	Mn	D	2ss		441.337
79	RN(sgtGK)	X	Mn	D	2ss		171.590
80	pOT	X	Lp	M	3o		137.852
81	pOT/cmLP	Y	Lp	M	3o		408.749
82	pOT/cmLP	X	Lp	M	3o		878.107

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "SEINE RIVER"

Y- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
124	pOT	X	Lp	W	3o		295.295
125	tsMG(RN)(cmLP)	X	Lup	D	2d	3r	17,555.170
126	pOT/sGO	X	Lp	M	3o		214.936
127	RN(tsMG)	Y	Ln	D	2ss		1,271.467
128	tsMG(gGK)(RN)	Y	Mn	D	2d		1,397.711
129	pAP	X	Lp	M	3o		299.425
130	pOT	X	Lp	W	3o		265.309
131	pOT	X	Lp	M	3o		244.629
132	sGO	X	Lp	M	2d		126.385
133	pAP	X	Lp	W	3o		425.161
134	pOT	X	Lp	W	3o		427.034
135	pAP	X	Lp	W	3o		219.315
136	pAP	X	Lp	W	3o		111.474
137	cmLP(RN)	X	Lu	D	1f	3r	547.666
138	RN(cmLP)(sgGO)	Y	Mnd	D	2sf	2d	2,988.782
139	sgtGK(RN)	Y	Mn	D	2d	3r	307.541
140	sgtGK(RN)	Y	Mn	D	2d	3r	232.641
141	cmLP(RN)	Y	Lun	D	1f	3r	1,123.993
142	RN(cmLP)(tsMG)	X	Ldn	D	2sf	2d	796.050
143	sgtGK(RN)	X	Mn	D	2d	3r	481.101
144	pOT/cmLP	X	Lp	M	3o		706.669
145	cmLP(RN)	X	Lp	M	1f	3r	272.061
146	cmLP/gGO	X	Lp	D	1f		42.444
147	pOT	X	Lp	W	3o		56.810
148	pOT	X	Lp	W	3o		551.747
149	pOT	X	Lp	M	3o		51.939
150	pOT	X	Lp	M	3o		134.266
151	pOT	X	Lp	M	3o		151.621
152	sgGK	X	Ln	D	2d		1,185.040
153	cmLP(RN)	Y	Lp	D	1f	3r	1,091.562
154	sGO(cmLP)(RN)	Y	Lp	D	2d	1f	407.498
155	sgGK	Y	Ln	D	2d		303.438
156	pOT/cmLP	Y	Lp	M	3o		779.187
157	RN(cmLP)(tsMG)	Y	Mn	D	2sf	2d	1,655.295
158	RN(cmLP)(tsMG)	Y	Mn	D	2sf	2d	9,583.680
159	pOT	X	Lp	W	3o		138.026
160	pOT	X	Lp	M	3o		347.152
161	RN(cmLP)(tsMG)	X	Lp	M	2sm	2d	287.284
162	pOT	X	Lp	W	3o		174.529
164	pOT	X	Lp	W	3o		13,130.480
165	pOT	X	Lp	W	3o		37.392

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "SEINE RIVER"

PLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
83	RN(cmLP)(tsMG)	X	Mn	D	2sf	2d	8,842.482
84	sAP	X	Lp	M	2d		2,638.298
85	RN(cmLP)(tsMG)	Y	Mn	D	2sf	2d	15,441.280
86	RN(cmLP)(tsMG)	X	Mn	D	2sf	2d	216.014
87	pOT	X	Lp	M	3o		401.108
88	pOT	X	Lp	M	3o		343.401
89	sAP	X	Lp	Mh	2d		113.094
90	RN(tsMG)(cmLP)	X	Mnj	D(M)	2ss	1f	2,529.287
91	msLP(RN)(pOT)	Y	Lp	M	2i	3r	276.971
92	msLP(RN)(pOT)	X	Lp	M	1c	3r	57.824
93	sgbGK(ME)	Y	Mr	D	2d		1,065.341
94	sgbGK(tsgbME)	Y	Mr	D	2d		9.533
95	tsMG/R(sgGO)	Y	Lru(Lp)	D(M)	2ss	2d	159.652
96	RN(tsMG)	X	Mn	D(M)	2ss		171.420
97	tsMG(RN)	X	Lur	D(M)	2d	3r	136.858
98	RN(tsMG)	Y	Hncj	D	2ss		2,201.105
99	RN(tsMG/R)(cLP)	Y	Mn(Lp)	D(M)	3vs	1f	3,842.686
100	RN(tsMG/R)	X	Hn	D	3vs		942.843
101	RN(tsMG/R)	X	Hn	D	3vs		601.032
102	tsMG(RN)	Y	Ln	D	2d	3r	6,986.006
103	sgGO	X	Lp	M	2d		192.390
104	pAP	Y	Lp	W	3o		39.526
105	pAP	Y	Lp	W	3o		17.225
106	pAP	Y	Lp	W	3o		67.821
107	sgGO(tsMG)(RN)	Y	Mnd	D	2d		3,049.605
108	spAP	X	Lp	W	3o		40.877
109	spAP	X	Lp	W	3o		147.554
110	RN(cmLP)(tsMG)	Y	Mn	D	2sf	2d	2,976.470
111	sgGO	Y	Lp	D	2d		54.583
112	pOT(RN)	Y	Lp	M	3o	3r	474.960
113	pOT	X	Lp	M	3o		110.623
114	pOT/cmLP	X	Lp	M	3o		337.268
115	sgGO(cmLP)	X	Lp	M	2d	1f	681.156
116	spAP(pOT)	X	Lp	W	3o		535.388
117	pOT	X	Lp	W	3o		32.165
118	pOT	X	Lp	W	3o		55.428
119	sgGO(cmLP)	X	Lp	M	2d	1f	37.104
120	sgGO(cmLP)	X	Lp	M	2d	1f	143.278
121	sgGO	Y	Lp	D	2d		66.375
122	RN(cmLP)(tsMG)	Y	Mn	D	2sf	2d	5,652.322
123	pOT	X	Lp	W	3o		399.859

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "SEINE RIVER"

Y- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
166	pOT	X	Lp	W	3o		28.832
167	pOT	X	Lp	W	3o		36.807
68	sgGD(RN)	X	Lup	D	2d	3r	124.564
69	RN(tsMG)	Y	Mn	D	2ss		467.544
170	pOT	X	Lp	W	3o		9,865.637
71	pOT	Y	Lp	W	3o		579.094
72	pOT	X	Lp	W	3o		322.248
173	pOT	X	Lp	W	3o		78.372
174	tsMG(sgGD)	X	Lu	D	2d		219.631
75	cmLP(RN)	X	Lp	D	1f	3r	133.445
76	pOT	X	Lp	M	3o		247.182
177	pOT	Y	Lp	M	3o		84.112
78	sgGD(cmLP)(RN)	Y	Lup	D	2d	1f	334.595
79	pOT	X	Lp	M	3o		1,077.680
180	pOT	X	Lp	M	3o		118.949
181	sgGD	X	Lp	Mh	2d		193.206
82	pOT	X	Lp	M	3o		171.615
183	pOT	X	Lp	M	3o		180.397
184	pOT	X	Lp	M	3o		142.753
85	RN(cmLP)(tsMG)	X	Mn	D	2sf	2d	225.587
86	RN(tsMG)	X	Mnj	D	2ss		6,627.969
187	pOT	X	Lp	W	3o		1,015.117
88	RN(tsMG)	X	Mn	D	2ss		72.632
89	RN(tsMG)(pOT)	X	Mnj	D(M)	2ss	3o	1,501.951
190	RN(tsMG)(pOT)	X	Mnj	D(M)	2ss	3o	1,212.031
191	pOT	X	Lp	W	3o		360.842
92	pOT	X	Lp	W	3o		72.981
93	RN(cmLP)(tsMG)	X	Lnp	D	2sf	2d	46.316
194	pOT	X	Lp	W	3o		353.291
95	pOT	X	Lp	W	3o		64.539
96	pOT	X	Lp	W	3o		75.546
197	pOT	Y	Lp	W	3o		119.306
98	pOT(RN)(cmLP)	X	Lun	M	3o	2sf	116.373
99	pOT(RN)(cmLP)	X	Lun	M	3o	2sf	1,694.164
200	RN(cmLP)(tsMG)	X	Ln	D	2sf	2d	163.682
201	RN(cmLP)(tsMG)	X	Ln	D	2sf	2d	657.910
102	RN(cmLP)(tsMG)	X	Ln	D	2sf	2d	116.608
103	RN(cmLP)(tsMG)	X	Ln	D	2sf	2d	53.909
204	sgOK	X	Ln	D	2d		162.919
105	sgGD(RN)	X	Lp	D	2d	3r	136.174
106	tsMG	X	Lu	D	2d		305.161

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "SEINE RIVER"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
207	RN(cmLP)(tsMG)	X	Ln	D	2sf	2d	127.155
208	RN(cmLP)(tsMG)	X	Ln	D	2sf	2d	22.895
209	pAP	X	Lp	M	3o		38.709
210	RN(cmLP)(tsMG)	X	Ln	D	2sf	2d	185.008
211	pOT	X	Lp	M	3o		210.558
212	pOT(AP)	X	Lp	M	3o	2p	450.478
213	cmLP(RN)(pOT)	X	Lpn	M	1f	3r	772.408
214	pOT	X	Lp	M	3o		686.059
215	tsMG(RN)(cmLP)	X	Ln	D	2d	2sf	465.117
216	RN(tsMG)	X	Ln	D	2ss		1,217.809
217	RN(tsMG)	X	Ln	D	2ss		14,308.470
218	pOT(cmLP)(RN)	X	Ln	M	3o	1f	772.219
219	RN(tsMG)(pOT)	X	Mnj	D	2ss	3o	1,230.411
220	RN(tsMG)(pOT)	X	Mnj	D	2ss	3o	14,418.760
221	RN(tsMG)(pOT)	X	Mnj	D	2ss	3o	4,196.652
222	pOT(cmLP)(RN)	X	Ln	M	3o	2sf	2,125.688
223	sGO	X	Ln	D	2d		2,227.951
224	pOT	X	Lp	M	3o		83.322
225	pOT(AP)	X	Lp	W	3o	2p	192.281
226	pOT/sGO	X	Lp	M	3o		1,052.599
227	tsMG(gGK)(RN)	X	Mn	D	2d		348.634
228	pOT	Y	Lp	W	3o		462.573
229	pOT/pAP	X	Lp	W	3o		187.355
230	sgGO	X	Lp	M	2d		626.440
231	sgGO	X	Lp	M	2d		19.084
232	RN(tsMG)(pOT)	X	Mnj	D	2ss	3o	17.533
233	pAP	X	Lp	W	3o		10,255.200
234	pAP	X	Lp	W	3o		191.641
235	sGO(pAP)	X	Lp	M	2d		870.309
236	RN(tsMG)(pOT)	X	Mnj	D	2ss	3o	156.107
237	sgGO(pOT)(RN)	Y	Lp	D(M)	2d	3o	702.577
238	RN(tsMG)	Y	Ln	D	2ss		2,503.684
239	pOT	X	Lp	M	3o		119.884
240	RN(tsMG)	X	Ln	D	2ss		88.652
241	RN(tsMG)	Y	Lnpc	D	2ss		3,265.285
242	sGO	X	Lp	D	2d		6,805.793
243	pAP	X	Lp	W	3o		104.264
244	pAP	X	Lp	W	3o		125.156
245	RN	X	Hnc	D	3r		45.893
246	sGO	X	Lp	M	2d		29.461
247	RN	X	Hnc	D	3r		49.273

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REPORT ON SOIL ATTRIBUTES FOR MAPSHEET "SEINE RIVER"

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "MARMION LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
81	msLP(RN)(pOT)	Y	Lp	M	1c	3r	153.238
255	mLp(RP)	X	Lpn	M	1c	3r	75.439
358	mLP(RP)	X	Lpn	M	1c	3r	114.815
160	cLP(mLP)	X	Lp	D(W)	1f	2p	75.915
297	cLP(mLP)	X	Lp	D(W)	1f	2p	150.016
289	cLP(tsMG/R)	X	Lp(Mn)	M	1f	2ss	248.018
54	sLP	Y	Msn	D	2d		1,482.883
56	sLP	X	Msn	D	2d		28.151
57	sLP	X	Msn	D	2d		11.399
58	sLP	X	Msn	D	2d		93.240
59	sLP	X	Msn	D	2d		3.175
60	sLP	X	Msn	D	2d		5.884
61	sLP	X	Msn	D	2d		3.868
65	gsGD	Y	Lp	D	2d		57.223
75	gsGD	X	Mpk	D	2d		25.486
76	gsGD	X	Mpk	D	2d		380.382
77	sgGD	X	Lu	D	2d		25.711
78	sgGD	X	Lu	D	2d		22.849
79	sgGD	X	Lu	D	2d		24.659
80	sgbGK(tsGBME)	Y	Mr	D	2d		728.445
84	gsGD	X	Hn	D	2d		100.479
86	gsGD	Y	Lpk	D	2d		1,015.868
87	gsGD	X	Mpk	D	2d		285.827
91	gsGD	X	Mp	D	2d		189.800
95	sgbGK(tsGBME)	X	Mr	D	2d		290.591
96	sgbGK(tsGBME)	X	Mr	D	2d		269.972
97	sgbGK(tsGBME)	X	Mr	D	2d		447.075
99	sgGD(tsGBME)	Y	Hr	D	2d		341.168
113	sgGD(tsGBME)	Y	Hr	D	2d		306.948
114	gsGD	Y	Lp	D	2d		138.388
115	sgGK(tsGBME)	Y	Mr	D	2d		49.215
116	sgGK(tsGBME)	X	Mr	D	2d		24.589
118	sgGK(tsGBME)	X	Mr	D	2d		60.908
119	sgGK(tsGBME)	Y	Mr	D	2d		308.588
122	gsGD	Y	Lp	D	2d		153.107
132	sgGD(sgAP)	X	Lp	D(n)	2d		42.565
133	sgGD(sgAP)	X	Lp	D(n)	2d		253.322
140	sgGK-GD	X	Lu	D	2d		74.700
146	gsbGK(tsGBME)	Y	Hr	D	2d		145.686
147	gsbGK(tsGBME)	Y	Hr	D	2d		249.887
148	gsGD(tsGBME)	Y	Mr	D	2d		165.826

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "MARMION LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
158	gsGK	X	Lrp	D	2d		60.780
159	gsGK	Y	Lrp	D	2d		35.481
163	sgGD	X	Mp	D	2d		40.013
164	sgGD	X	Mp	D	2d		51.627
165	sgGD	Y	Mp	D	2d		25.856
168	gsbGK(tsbME)	X	Mr	D	2d		175.205
169	gsbGK(tsbME)	X	Mr	D	2d		356.265
178	gsGD	Y	Lp	D	2d		124.448
179	gsGD(tsgbME)	Y	Mr(Hr)	D	2d		274.324
180	msAP	X	Lp	W	2d		159.022
181	gsbGK(tsgbME)	Y	Mr	D	2d		666.664
184	gsGK(gsgD)(RN)	Y	Mn	D	2d		742.816
188	gsGK	Y	Lp	D	2d		475.477
230	tsgb(ME)	Y	Mr	D	2d		477.977
241	tsgbME	X	Mr	D	2d		80.526
249	tsgbME(SgbGK)	X	Mr	D	2d		534.085
268	sgbGK(tsgbME)	X	Mr	D	2d		473.565
269	sgbGK(tsgbME)	X	Mr	D	2d		26.529
270	sgbGK(tsgbME)	X	Mr	D	2d		36.089
282	tsgbME(sgbGK)	X	Mr	D	2d		21.793
283	tsgbME(sgbGK)	Y	Mr	D	2d		547.442
343	sGO-GK	X	Lp(Mn)	D	2d		485.242
344	sGO-GK	X	Lp(Mn)	D	2d		68.368
389	gsbGE(tsgbME)	X	Mr	D	2d		36.955
390	gsbGE(tsgbME)	X	Mr	D	2d		66.102
397	gsGD	Y	Lp	D	2d		337.241
259	sGO(mAP)	X	Lp	D(W)	2d	2p	613.521
260	sGO(mAP)	Y	Lp	D(W)	2d	2p	186.436
261	sGO(mAP)	X	Lp	D(W)	2d	2p	106.803
123	gsGK-GE/R	Y	Mnr	D	2d	2ss	131.079
124	gsGK-GE/R	Y	Mnr	D	2d	2ss	219.986
2	gsGO(pOT)	X	Lpk	D(W)	2d	3o	903.243
7	gsGO(pOT)	X	Lp	D(W)	2d	3o	608.531
18	smLP(pOT)(RN)	X	Lp(Hn)	W(D)	2d	3o	550.351
26	sgGO(RN)	X	Lp(Ln)	D	2d	3r	266.353
33	sLP(RN)	X	Lp(Mn)	D(W)	2d	3r	650.630
314	tsMG(RN)	X	Ln	D	2d	3r	309.131
392	smLP(RN)	X	Lpn	M	2d	3r	363.066
157	sgGO	Y	Lp	M	2i		94.791
211	sgGO	X	Lp	M	2i		190.971
27	msAP	Y	Lp	W	2p		2,184.328

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "MARMION LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
34	sAP	X	Lp	W	2p		184.140
35	sgO	X	Lp	W	2p		182.181
36	sLP	X	Lp	W	2p		119.647
64	mcAP	X	Lp	W	2p		312.256
66	mcAP	Y	Lp	W	2p		44.301
90	cLP	X	Lp	W	2p		136.803
101	mcAP	X	Lp	W	2p		121.165
111	cLP(mAP)(RN)	Y	Lp(Mn)	W(D)	2p		113.468
112	cLP(mAP)(RN)	Y	Lp(Mn)	W(D)	2p		345.274
120	cLP	Y	Lp	W	2p		382.466
121	cLP	Y	Lp	W	2p		56.619
128	cLP	X	Lp	W	2p		82.360
129	cLP	X	Lp	W	2p		258.308
161	cLP(mLP)	Y	Lp	W	2p		1,125.255
162	cLP	X	Lp	W	2p		117.522
166	cLP	X	Lp	W	2p		141.834
167	cLP	X	Lp	W	2p		59.628
193	sLP	X	Lp	W	2p		107.583
194	sLP	X	Lp	W	2p		97.146
195	sLP	X	Lp	W	2p		155.823
219	mcLP	Y	Lp	W	2p		390.215
229	mLP	X	Lp	W	2p		32.670
231	sgGO	Y	Lp	W	2p		193.126
232	sgGO	X	Lp	W	2p		3.026
233	sgGO	X	Lp	W	2p		17.349
234	sgGO	X	Lp	W	2p		4.417
243	mAP	X	Lp	W	2p		241.729
250	mAp	X	Lp	W	2p		324.621
251	mAp	X	Lp	W	2p		24.661
254	mAp	X	Lp	W	2p		68.770
280	cLP	Y	Lp	W	2p		173.159
281	cLP	Y	Lp	W	2p		121.701
345	mAP	X	Lp	W	2p		65.424
359	mAp	X	Lp	W	2p		202.142
360	mAp	X	Lp	W	2p		52.104
370	mAP	X	Lp	W	2p		144.135
371	mAP	X	Lp	W	2p		397.327
372	mAP	X	Lp	W	2p		32.173
395	mAP	X	Lp	W	2p		50.811
399	mcLP	X	Lp	W	2p		205.140
37	smLP(RN)	X	Lp(Mn)	W(D)	2p	3r	120.383

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "MARMION LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
38	smLP(RN)	X	Lp(Mn)	W(D)	2p	3r	79.829
39	smLP(RN)	X	Lp(Mn)	W(D)	2p	3r	474.228
40	smLP(RN)	X	Lp(Mn)	W(D)	2p	3r	261.652
41	smLP(RN)	X	Lp(Mn)	Wh(D)	2p	3r	488.356
42	smLP(RN)	X	Lp(Mn)	Wh(D)	2p	3r	98.410
43	smLP(RN)	X	Lp(Mn)	Wh(D)	2p	3r	114.181
131	cLP(RN)	X	Lp(Mn)	W(D)	2p	3r	420.013
197	sLP(RN)	X	Lp(Mn)	W(D)	2p	3r	470.114
256	mLp(RP)	X	Lpn	W	2p	3r	183.608
291	cLP(RN)	X	Lp(Hn)	W(D)	2p	3r	198.088
304	cLP(RN)	Y	Lp(Mn)	W(D)	2p	3r	1,226.533
305	cLP(RN)	X	Lp(Mn)	W(D)	2p	3r	66.746
346	mcLp(RP)	X	Lp	W(D)	2p	3r	56.389
347	mcLp(RP)	X	Lp	W(D)	2p	3r	91.479
348	mcLp(RP)	X	Lp	W(D)	2p	3r	108.728
349	mcLp(RP)	X	Lp	W(D)	2p	3r	177.899
350	mcLp(RP)	X	Lp	W(D)	2p	3r	145.906
351	mcLp(RP)	X	Lp	W(D)	2p	3r	301.450
85	RN(cLP)	X	MnLp	D(W)	2sf		1,060.475
98	RN(cLP)	Y	Hn(Lp)	D(W)	2sf		346.772
103	RN(cLP)	X	Hn(Lp)	D(W)	2sf		297.635
104	RN(cLP)	X	Hn(Lp)	D(W)	2sf		58.778
221	sgGO/RP	Y	Lp	M	2sm		180.809
222	sgGO/RP	X	Lp	M	2sm		162.241
4	gsGO/R	X	Mpk	D	2ss		791.989
71	RN(gsGO-GK)	X	Hrncj	D	2ss		461.224
82	RN(tsMG)	X	Hncj	D	2ss		1,558.474
315	RN(tsMG)	X	Lnpc	D(W)	2ss		2,018.729
393	RN(tsMG)	X	Lnpc	D	2ss		188.901
1	tsMG/R(sgGO)	X	Lru(Lp)	D(M)	2ss	2d	1,712.664
68	tsgbMH/R(sgbGK)	X	Hn	D	2ss	2d	340.743
69	tsgbMH/R(sgbGK)	X	Hn	D	2ss	2d	1,395.642
70	tsgbMH/R(sgbGK)	X	Hn	D	2ss	2d	1,406.703
284	tsbMH/R(sgbGK) (msLPXX	X	Mn(Lp)	D(W)	2ss	2d	1,014.709
245	sgGO/RP(pOT)	X	Lp	D(W)	2ss	3o	268.605
301	tsMG/RP(pOT)	Y	Mn(Lp)	D(W)	2ss	3o	1,812.772
302	tsMG/RP(pOT)	X	Mn(Lp)	D(W)	2ss	3o	29.665
324	RN(tsMG)(pOT)	X	Mnj	D	2ss	3o	232.491
220	sgGO/R(RN)	Y	Lp(Mn)	D	2ss	3r	251.707
246	sLP/R(RR)(pOT)	X	Lp(Lr)	D(W)	2ss	3r	269.510
247	tsMG/RP(RP)	X	Lpu	D	2ss	3r	1,781.127

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "MARMION LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
248	tsMG/RP(RP)	X	Lpu	D	2ss	3r	350.757
380	sLP/R(RR)	X	Lp(Lr)	D(W)	2ss	3r	256.242
379	pOT/msLP(cLP)	X	Lp	W	3o	2p	46.523
3	pOT/sGD	X	Lp	W	3o		185.195
30	pOT/sGD	X	Lp	W	3o		163.914
44	pOT	X	Lp	W	3o		113.853
45	pOT	X	Lp	W	3o		121.056
46	pOT	X	Lp	W	3o		111.404
47	pOT	X	Lp	W	3o		127.414
48	pOT	X	Lp	W	3o		53.646
49	pOT	X	Lp	W	3o		16.773
50	pOT	X	Lp	W	3o		9.321
51	pOT	X	Lp	W	3o		224.133
89	pOT/cLP	X	Lp	W	3o		270.360
125	pOT/cLP	X	Lp	W	3o		103.699
126	pOT/cLP	X	Lp	W	3o		45.121
127	pOT/cLP	X	Lp	W	3o		46.267
130	pOT/cLP	X	Lp	W	3o		274.983
134	pOT/cLP	X	Lp	W	3o		58.174
135	pOT/cLP	X	Lp	W	3o		264.035
136	pOT/cLP	X	Lp	W	3o		29.476
137	pOT/cLP	X	Lp	W	3o		58.962
141	pOT/cLP	X	Lp	W	3o		137.355
142	pOT/cLP	X	Lp	W	3o		117.151
151	pOT	X	Lp	W	3o		181.912
152	pOT	Y	Lp	W	3o		83.156
153	pOT	Y	Lp	W	3o		62.843
154	pOT	X	Lp	W	3o		92.479
155	pOT	X	Lp	W	3o		38.518
156	pOT/cLP	Y	Lp	W	3o		204.433
170	pOT/cLP	X	Lp	W	3o		129.007
182	pOT	X	Lp	W	3o		95.750
186	pOT	X	Lp	W	3o		445.689
191	pOT	Y	Lp	W	3o		74.616
239	pOT	X	Lp	W(D)	3o		151.063
240	pOT/mcLP	X	Lp	W	3o		151.059
252	pOT	X	Lp	W	3o		122.771
257	pOT	X	Lp	W	3o		97.605
271	pOT/cLP	X	Lp	W	3o		178.673
272	pOT/cLP	X	Lp	W	3o		299.150
273	pOT/cLP	X	Lp	W	3o		64.714

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "MARMION LAKE"

JULY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
287	pOT/mcAP	X	Lp	W	3o		172.319
295	pOT	Y	Lp	W	3o		142.384
296	pOT	X	Lp	W	3o		48.789
308	pOT	Y	Lp	W	3o		78.265
309	pOT	Y	Lp	W	3o		186.981
310	pOT	Y	Lp	W	3o		54.666
311	pOT	Y	Lp	W	3o		47.057
312	pOT	Y	Lp	W	3o		42.437
322	pOT	X	Lp	W	3o		152.072
327	pOT	X	Lp	W	3o		106.207
328	pOT	X	Lp	W	3o		138.412
329	pOT	X	Lp	W	3o		148.622
341	pOT	X	Lp	W	3o		138.818
364	pOT/smAP	X	Lp	W	3o		25.079
366	pOT/smAP	X	Lp	W	3o		70.262
394	pOT	X	Lp	W	3o		52.830
398	pOT	X	Lp	W	3o		103.086
139	pOT(mAP)(RN)	X	Lp(Mn)	W(D)	3o	2p	334.428
276	pOT/mcLP(mAP)	X	Lp	W	3o	2p	80.056
277	pOT/mcLP(mAP)	X	Lp	W	3o	2p	104.566
375	pOT/msLP(cLP)	X	Lp	W	3o	2p	77.230
376	pOT/msLP(cLP)	X	Lp	W	3o	2p	477.552
382	pOT/smLP(smLP)	X	Lp	W	3o	2p	73.960
383	pOT/smLP(smLP)	X	Lp	W	3o	2p	279.608
384	pOT/smLP(smLP)	X	Lp	W	3o	2p	20.504
385	pOT/smLP(smLP)	X	Lp	W	3o	2p	19.552
386	pOT/smLP(smLP)	X	Lp	W	3o	2p	245.909
396	pOT/cLP(mAP)	X	Lp	W	3o	2p	148.458
365	pOT/cLP(RN)	X	Lp(Hrn)	W(D)	3o	3R	217.543
83	pOT/msLP(RN)	X	Lp(Mn)	W(D)	3o	3r	398.752
238	pOT(RP)	X	Lp	W(D)	3o	3r	204.248
244	pOT(RP)	X	Lp	M	3o	3r	80.875
285	pOT/cLP(RP)	Y	LpJ	D	3o	3r	590.766
292	pOT(RP)	X	Lp(Ln)	W(D)	3o	3r	646.313
293	pOT(RN)	Y	Lp	W	3o	3r	122.590
294	pOT(RP)	Y	Lp	W(D)	3o	3r	192.361
323	pOT(RP)	X	Lp	W(D)	3o	3r	299.327
337	pOT(RN)	X	Lp(Mn)	W(D)	3o	3r	167.599
338	pOT(RN)	X	Lp(Mn)	W(D)	3o	3r	270.915
339	pOT(RN)	X	Lp(Mn)	W(D)	3o	3r	105.850
361	pOT/mAP(RN)	X	Lp(Mn)	W(D)	3o	3r	605.335

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "MARMION LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
362	pOT/mAP(RN)	X	Lp(Mn)	W(D)	3o	3r	104.641
368	pOT/smLP(RN)	X	Lp(Mn)	W(D)	3o	3r	161.425
369	pOT/smLP(RN)	X	Lp(Mn)	W(D)	3o	3r	114.944
374	pOT/msLP(RN)	X	Lp(Hn)	W-D	3o	3r	106.190
5	RN	X	Mn	D	3r		273.035
9	RR(RN)	X	Hnrcj	D	3r		199.578
10	RR(RN)	X	Hnrcj	D	3r		8.136
11	RR(RN)	X	Hnrcj	D	3r		100.297
12	RR(RN)	X	Hnrcj	D	3r		9.471
13	RR(RN)	X	Hnrcj	D	3r		70.443
14	RP	X	Lpcj	D	3r		2,227.361
15	RN	X	Mn	D	3r		456.538
16	RN(RR)	Y	Hnrcj	D	3r		6,882.056
17	RR(RN)(tsMG/R)	X	Hnrc	D	3r		46.510
20	RR(RN)(tsMG/R)	X	Hnrc	D	3r		2,668.126
28	RN	X	Hncj	D	3r		2,430.526
29	RN	X	Hncj	D	3r		16.237
32	RN	X	Hn	D	3r		714.536
63	RN(RR)	Y	Hnr	D	3r		2,478.504
67	RN	Y	Hn	D	3r		3,914.613
72	RN	X	Hn	D	3r		109.372
73	RR(RN)	X	Mrn	D	3r		926.181
74	RR(RN)	X	Mrn	D	3r		740.601
143	RN	Y	Hnj	D	3r		675.983
144	RN	Y	Hnj	D	3r		1,835.021
145	RN	X	Hnj	D	3r		12.265
149	RN(RR)(pOT)	Y	Hnr(Lp)	D(W)	3r		8,224.281
150	RN(RR)(pOT)	Y	Hnr(Lp)	D(W)	3r		365.274
174	RN	X	Hn	D	3r		266.473
175	RN	X	Hn	D	3r		404.885
176	RN	X	Hn	D	3r		469.469
183	RR(RN)	Y	Mnr	D	3r		498.378
185	RN(RN)	X	Mnr	D	3r		505.096
189	RN	X	Mn	D	3r		119.946
203	RN	X	Hn	D	3r		238.805
204	RN	X	Hn	D	3r		189.904
205	RN	X	Hn	D	3r		38.609
208	RN	X	Hn	D	3r		194.522
209	RN	X	Hn	D	3r		2,777.203
212	RN	X	Hn	D	3r		761.828
223	RN(RR)(pOT)	Y	Mnrc(LP)	D(W)	3r		6,893.974

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "HARMION LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
224	RN(RR)(pOT)	X	Mnrc(LP)	D(W)	3r		63.239
225	RN(RR)(pOT)	X	Mnrc(LP)	D(W)	3r		33.495
227	RN(RR)(pOT)	Y	Mnrc(LP)	D(W)	3r		644.051
228	RN(RR)(pOT)	X	Mnrc(LP)	D(W)	3r		222.079
235	RP	Y	Lucj	D	3r		3,050.738
236	RP	X	Lucj	D	3r		2,854.053
237	RP	Y	Lucj	D	3r		367.541
253	RP(RN)(pOT)	X	Mpnc(Lp)	D(W)	3r		4,437.885
258	RP(RN)(pOT)	X	Mpnc(Lp)	D(W)	3r		378.999
263	RN(RR)	Y	Mnr	D	3r		2,525.536
266	RN(RR)	Y	Mnr	D	3r		797.749
267	RN(RR)	Y	Mnr	D	3r		1,121.029
278	RP	Y	Lpj	D	3r		7,734.411
279	RP	X	Lpj	D	3r		29.843
288	RN(RP)(pOT)	Y	Hnr(Lp)	D(W)	3r		1,756.382
290	RP	Y	Lpc	D	3r		9,209.768
316	RN	X	Hnc	D	3r		10,316.810
317	RN	X	Hnc	D	3r		416.235
318	RN	X	Hnc	D	3r		826.830
319	RP(RN)(pOT)	X	Mpnc(Lp)	D(W)	3r		14,896.430
320	RP(RN)(pOT)	X	Mpnc(Lp)	D(W)	3r		43.956
321	RP(RN)(pOT)	X	Mpnc(Lp)	D(W)	3r		105.872
326	RR(RN)(pOT)	X	Hvn(Lp)	D(W)	3r		8,351.648
340	RR(RN)(pOT)	X	Hrn(Lp)	D(W)	3r		1,590.358
356	RR(pOT)	X	Hrncj	D	3r		4,776.880
363	RR(RN)(pOT)	X	Hrncj(Lp)	D(W)	3r		277.314
367	RR	X	Mr	D	3r		3,820.348
381	RR(RN)(pOT)	X	Hrncj(Lp)	D(W)	3r		499.761
6	RR(pOT)	X	Mr(Lp)	D(W)	3r	3o	414.408
52	RN(pOT)	X	Hn(Lp)	D(W)	3r	3o	10,386.950
88	RN(pOT)	X	Hn(Lp)	M	3r	3o	159.827
242	RP(pOT/mcLp)	X	Lp	D(W)	3r	3o	518.797
286	RP(pOT)	Y	Lp	D(W)	3r	3o	3,702.703
303	RP(pOT)	X	Lpc	D(W)	3r	3o	1,501.160
325	RN(pOT)	X	Hrn	D(W)	3r	3o	67.467
330	RN(pOT)	X	Hn(Lp)	D(W)	3r	3o	643.086
331	RN(pOT)	X	Hn(Lp)	D(W)	3r	3o	2,259.542
332	RN(pOT)	X	Hn(Lp)	D(W)	3r	3o	2,713.082
333	RN(pOT)	X	Hn(Lp)	D(W)	3r	3o	2,707.334
334	RN(pOT)	X	Hn(Lp)	D(W)	3r	3o	612.969
335	RN(pOT)	X	Hn(Lp)	D(W)	3r	3o	7,178.217

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "MARMION LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
336	RN(pOT/cLP)	X	Mn(Lp)	D(W)	3r	3o	77.254
342	RN(pOT)	X	Hn(Lp)	D(W)	3r	3o	56.873
352	RN(pOT/mcLP)	X	Mn(Lp)	D(W)	3r	3o	426.409
353	RN(pOT/mcLP)	X	Mn(Lp)	D(W)	3r	3o	179.359
354	RR(pOT)	X	Mrc(Lp)	D(W)	3r	3o	347.350
355	RR(pOT)	X	Mrc(Lp)	D(W)	3r	3o	2,198.075
357	RR(pOT)	X	Mrc(Lp)	D(W)	3r	3o	2,139.685
373	RR(pOT/smLP)	X	Hr(Lp)	D(W)	3r	3o	425.092
387	RN(pOT/sLP)	X	Mn(Lp)	D(W)	3r	3o	26.254
388	RN(pOT/sLP)	X	Mn(Lp)	D(W)	3r	3o	173.030
377	RN(RR)(tsMG/R)	X	Hr	D	3r	3vr	1,508.700
378	RN(RR)(tsMG/R)	X	Hr	D	3r	3vr	90.669
391	RN(RR)(tsMG/R)	X	Hr	D	3r	3vs	277.595
8	RN(tsMG/R)(pOT)	X	Hn(Lp)	D(W)	3vr		628.537
19	RN(tsMG/R)	X	Hcn	D	3vr		372.774
21	RN(sgGO/R)	X	Mn(Lp)	D	3vr		374.870
22	RN(tsMG/R)	X	Mn	D	3vr		28.671
23	RN(tsMG/R)	X	Mn	D	3vr		12,812.480
24	RN(tsMG/R)	X	Mn	D	3vr		220.972
25	RN(tsMG/R)	X	Mn	D	3vr		28.376
31	RN(tsMG/R)	X	Hnc	D	3vr		5,876.469
105	RN(tsMG/R)	X	Hn	D	3vr		64.764
106	RN(tsMG/R)	X	Hn	D	3vr		40.482
107	RN(tsMG/R)	Y	Hn	D	3vr		18,628.130
108	RN(tsMG/R)	Y	Hn	D	3vr		849.363
109	RN(tsMG/R)	X	Hn	D	3vr		71.113
110	RN(tsMG/R)	X	Hn	D	3vr		68.734
138	RN(tsMG/R)(cLP)	X	Mn(Lp)	D-W	3vr		5,282.344
171	RN(gsgK/R-GO/R)	Y	Hn	D	3vr		3,951.807
172	RN(gsgK/R-GO/R)	X	Hn	D	3vr		185.395
173	RN(gsgK/R-GO/R)	X	Hn	D	3vr		119.723
177	RN(gsgK/R-GO/R)	Y	Hn	D	3vr		1,223.822
190	RN(gsgO/R)	Y	MrcJ	D	3vr		1,752.063
192	RN(tsMG/R)(sgO/R)	Y	Mn	M	3vr		7,576.347
196	RN(tsMG/R)(sgO/R)	X	Mn	M	3vr		75.234
198	RN(tsMG/R)(sgO)	X	Hn(Lp)	D(Dh)	3vr		3,260.863
199	RN(tsMG/R)(sgO)	X	Hn(Lp)	D(Dh)	3vr		40.049
200	RN(tsMG/R)(sgO)	X	Hn(Lp)	D(Dh)	3vr		626.969
201	RN(tsMG/R)(sgO)	X	Hn(Lp)	D(Dh)	3vr		41.846
202	RN(tsMG/R)(sgO/R)	X	Mn	M	3vr		26.238
206	RN(tsMG/R)	X	Hnc	D	3vr		32.712

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "MARMION LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
207	RN(tsMG/R)	X	Hnc	D	3vr		26.429
210	RN(tsMG/R)	X	Hn	D	3vr		126.988
213	RN(tsMG/R)sgGO /R)	X	Hn(Mp)	D	3vr		174.158
214	RN(tsMG/R)sgGO /R)	X	Hn(Mp)	D	3vr		1,613.912
215	RN(tsMG/R)sgGO /R)	X	Hn(Mp)	D	3vr		981.529
216	RN(tsMG/R)sgGO /R)	X	Hn(Mp)	D	3vr		302.375
218	RN(gsgO/R)	Y	Hn(Mp)	D	3vr		2,247.104
274	RN(tsMG/RN)	X	Hn	D	3vr		1,792.263
275	RN(tsMG/RN)	X	Hn	D	3vr		1,591.917
298	RN(tsMG/R)	Y	Hn	D	3vr		2,547.018
299	RN(tsMG/R)	X	Hn	D	3vr		24.750
300	RN(tsMG/R)	Y	Hn	D	3vr		197.778
306	RN(tsMG/R)	X	Hn	D	3vr		211.597
307	RN(tsMG/R)	Y	Hn	D	3vr		3,753.772
313	RP(tsMG/RP)(pO T)	X	Lpnc	D(W)	3vr		8,245.840
92	RN(tsMG/R)(cLP)	X	Mn(Lp)	D(W)	3vr	2p	1,011.710
93	RN(tsMG/R)(cLP)	X	Mn(Lp)	D(W)	3vr	2p	80.634
94	RN(tsMG/R)(cLP)	X	Mn(Lp)	D(W)	3vr	2p	51.218
100	RN(tsMG/R)(cLP)	Y	Mn(Lp)	D(W)	3vr	2p	2,093.082
102	RN(tsMG/R)(cLP)	Y	Mn(Lp)	D(W)	3vr	2p	92.032
							=====
							327,730.698

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "ROSLYN LAKE"

ONLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
1	RR(RN)(tsMG/R)	X	Hrn	D	3r		37.741
2	RR(RN)(tsMG/R)	X	Hrn	D	3r		6.760
3	RR(RN)(tsMG/R)	X	Hrn	D	3r		64.270
4	pOT	X	Lp	W	3o		22.424
5	sgGO(RN)	X	Lu	D	2d	3r	87.215
6	sgGO/tMG/R(pOT, RN)	X	Lu	M	2sm	3o	842.340
7	RN	X	-	-	3r		96.337
8	pOT	X	Lp	W	3o		54.682
9	mAP	X	Lp	W	2p		123.166
10	mLP	X	Lp	W	2p		14.963
11	RN(tMG/R)	X	Mnj	D	3vs		700.515
12	tMG/RN	X	Lu	M	2sm		2,127.127
13	RN(tMG/R, pOT)	X	Mnj	M	3vs	3o	3,010.334
14	pOT/sgGO	X	Lp	W	3o		69.527
15	RN	X	-	-	3r		90.647
16	pOT/sgGO	X	Lp	W	3o		226.566
17	RN(tMG/R, pOT)	X	Mnj	M	3vs	3o	34.451
18	pOT/sgGO	X	Lp	W	3o		371.452
19	sgGO/tMG/R(RN)	X	Lu	M	2sm	3r	63.423
20	sgGO/tMG/R(RN)	X	Lu	M	2sm	3r	236.586
21	tMG(RN)	X	Mn	D	2d		86.955
22	RN(tMG/R)	X	Mnj	D	3vs		272.411
23	sgGO/R	X	Lu	M	2sm		233.354
24	RN(tMG/R)	Y	Mnj	D	3vs		689.041
25	sgGO	X	Lp	Mh	2i		151.222
26	tMG/R	Y	Lp	D	2ss		65.846
27	sgGO/R	Y	Lu	M	2sm		340.161
28	tMG/R(RN, pOT)	Y	Luw	M	2sm	3r	5,935.752
29	sgGO/tMG(RN)	X	Lu	W	2p	3r	254.455
30	sgGO/tMG(RN)	Y	Lu	W	2p	3r	302.712
31	RN(tsMG/R)	Y	Mn	M	3vs		755.106
32	pOT	X	Lp	W	3o		88.709
33	sgGO/tMG(RN)	X	Lu	W	2p	3r	49.794
34	tMG/R(RN)	Y	Mu	M	2sm	3r	2,665.155
35	sgGO/tMG/R	Y	Lu	M	2sm		205.560
36	sgGO/tMG/R	X	Lu	M	2sm		204.024
37	tMG/R(RN, pOT)	X	Luw	M	2sm	3r	163.086
38	RN(tMG/R)	X	Mn	M	3vs		526.980
39	tMG/R(RN)	X	Lu	M	2sm	3r	22.071
40	tMG/R(RN)	X	Lu	M	2sm	3r	1,387.106
41	pOT	X	Lu	W	3o		412.874

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "ROSLYN LAKE"

PLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
42	tMG/R(RN)	X	Lu	M	2sm	3r	61.862
43	sGO/tMG/R(pOT)	X	Lu	Mh	2sm	3o	3.603
44	sGO/tMG/R(pOT)	Y	Lu	M	2sm	3o	1,070.635
45	sGO/tMG/R(pOT)	X	Lu	M	2sm	3o	55.514
46	RN(tMG/R)	Y	Mn	D	3vs		108.726
47	tMG/R(RN, pOT)	Y	Mu	M	2sm	3r	731.962
48	RN(tMG/R)	X	Mu	D	3vs		257.762
49	sGO/tMG/R(pOT)	X	Lu	Mh	2sm	3o	17.619
50	RN(tMG, pOT)	X	Lu	M	2sm	3o	29.456
51	sGO/R(pOT, RN)	X	Lu	W	2sm	3o	401.527
52	RN	X	-	-	3r		34.577
53	pOT/sGO/tMG(RN)	X	Lu	W	3o	3r	534.223
54	tMG/R(RN)	X	Lu	D	2ss	3r	131.300
55	tMG/R(RN)	X	Lu	D	2ss	3r	147.876
56	pOT/sGO/tMG(RN)	X	Lu	W	3o	3r	158.271
57	sGO/tMG/R(RN)	Y	Lu	M	2sm	3r	1,144.256
58	RN(tMG/R)	Y	Mu	M	3vs		820.408
59	sGK/R(RN)	Y	Ln	D	2ss		90.092
60	pOT	Y	Lp	W	3o		725.827
61	tMG/R(RN)	X	Lu	D	2ss	3r	241.156
62	tMG/R	X	Lr	D	2ss		55.896
63	tMG/R(RN)	X	Lr	D	2ss	3r	120.601
64	tMG/R(RN)	X	Mu	M	2sm	3r	866.959
65	pOT	X	Lp	W	3o		323.560
66	tbMG/R(RN, sgGK)	Y	Mn	M	2sm	3r	1,636.922
67	RN(tMG/R)	Y	Mn	D	3vs		297.070
68	RN(tMG/R)	X	Mn	D	3vs		364.995
69	RN	Y	-	-	3r		48.141
70	RN	Y	-	-	3r		79.173
71	tMG/RN(RN)	X	Luw	M	2sm	3r	961.112
72	RN	X	Mn	D	3r		117.257
73	pOT	X	Lp	W	3o		102.575
74	sgGK, sgGE/R(RN)	Y	Lun	M	2sd	3r	855.740
75	sgGK, sgGE/R(RN)	Y	Lun	M	2sd	3r	12.215
76	pOT	Y	Lp	W	3o		185.476
77	RN	Y	Mn	D	3r		153.051
78	sgGE(RN, sgGK)	X	Mrk	D	2d	2ss	268.072
79	RN(tMG/R)	X	Mu	M	3vs		1,499.647
80	RN(tMG/R)	X	Mu	M	3vs		57.465
81	tMG(smLP)	X	Lu	M	2i	1c	370.306
82	RN(tMG/R)	X	Lu	M	3vs		150.854

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "ROSLYN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
83	tMG/R(RN)	X	Luw	M	2sm	3r	1,903.218
84	tMG/R(RN)	X	Luw	M	2sm	3r	1.584
85	pOT	X	Lp	W	3o		118.131
86	pOT/tMG/R(RN)	X	Lu(h)	W	3o		429.734
87	tMG/RN(RN)	X	Luw	M	2sm	3r	73.514
88	tMG/R(RN)	X	Luw	M	2sm	3r	10.244
89	pOT/tMG/R(RN)	X	Lu(h)	W	3o		146.451
90	tMG/R(RN)	X	Luw	M	2sm	3r	249.795
91	pOT/sGO(RN)	X	Ln	W	3o	3r	128.142
92	tMG/R(RN)	X	Luw	M	2sm	3r	102.262
93	pOT/sGO(RN)	X	Lu	W	3o	3r	338.791
94	tMG/R(RN)	X	Luw	M	2sm	3r	270.311
95	pOT/sGO(RN)	X	Lu	W	3o	3r	253.074
96	RN	X	-	-	3r		56.327
97	RN	X	-	-	3r		68.789
98	RN	X	-	-	3r		26.320
99	sGO/R	X	Lu	M	2sm		43.464
100	RN(tMG/R)	X	Mu	M	3vs		400.814
101	pOT/sGO(RN)	X	Lu	W	3o	3r	70.719
102	RN	X	-	-	3r		111.912
103	sgGO, sgGE/R(RN)	X	Lhp	M	2i	2ss	844.057
104	sgGO, sgGE/R(RN)	Y	Lhp	M	2i	2ss	149.481
105	RN(tMG/R)	X	Mn	D	3vs		349.179
106	tMG/R(RN)	Y	Lu	M	2sm	3r	828.420
107	tMG/R(RN)	X	Lu	M	2sm	3r	116.331
108	tMG/R(RN)	X	Lu	M	2sm	3r	252.497
109	tMG/R(RN)	X	Lu	M	2sm	3r	229.276
110	gGE, gsGK(RN)	Y	Mnr	D	2d	3r	885.193
111	sgGK, sgGE, sgGO (RN)	Y	Lnrk	M	2i	3r	1,288.162
112	RN(tMG/R)	X	Mun	M	3vs		320.792
113	pAP(pOT)	X	Lp	W	3o		73.747
114	RN(tMG/R)	Y	Mun	M	3vs		2,080.523
115	pOT	X	Lp	W	3o		65.939
116	tMG/R(RN, pOT)	X	Ln	M	2sm	3r	167.855
117	RN	X	-	-	3r		38.543
118	RN	X	-	-	3r		23.410
119	tMG/R(RN, pOT)	Y	Lu	M	2sm	3r	2,779.345
120	sGO(pAP, sGK)	X	Lu	M	2i	3o	16.152
121	RN	X	Mu	M	3r		155.416
122	pOT	X	Lp	W	3o		455.940
123	RN	X	Mu	M	3r		69.494

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "ROSLYN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
125	pOT	X	Lp	W	3o		115.347
126	RN	X	Mu	M	3r		149.642
127	RN	X	Mu	M	3r		156.240
129	sgO/tMG/R(RN)	X	Lu	M	2sm	3r	854.233
130	sgO, tMG/R	X	Lu	M	2i		540.321
131	RN	X	-	-	3r		26.914
132	RN	X	-	-	3r		34.558
133	RN(tMG/R)	X	Mn	M	3vs		715.734
134	pOT	X	Lp	W	3o		695.518
135	RN	X	-	-	3r		36.620
136	RN	X	-	-	3r		16.411
137	pOT	X	Lp	W	3o		84.490
138	RN(tMG/R)	X	Lun	D	3vs		90.298
139	RN(tMG/R)	X	Lun	D	3vs		71.720
140	tbMG/R(RN)	X	Lu	M	2sm	3r	266.491
141	RN	X	-	-	3r		16.817
142	RN(tMG/R)	X	Lun	D	3vs		168.424
143	tbMG/R(RN)	X	Lu	M	2sm	3r	89.266
144	RN(tMG/R)	X	Lun	D	3vs		93.837
145	tMG/R(RN)	Y	Mu	M	2sm	3r	1,013.540
146	RN	X	-	-	3r		31.550
147	RN	X	-	-	3r		58.902
148	RN	X	-	-	3r		29.834
149	tMG/R(RN)	X	Mn	M	2sm	3r	429.512
150	sgGE, sgGO, sgGK (RN)	X	Lrn	M	2i	3r	19.855
151	sgGE, sgGO, sgGK (RN)	X	Lrn	M	2i	3r	63.756
153	sgGE, sgGO, sgGK (RN)	Y	Lrn	M	2i	3r	1,458.268
154	sgO/R	X	Lu	M	2sm		118.207
155	RN	X	-	-	3r		29.267
156	RN	X	-	-	3r		82.100
157	RN	X	-	-	3r		50.067
158	RN	X	-	-	3r		68.387
159	RN(tMG/R)	X	Mn	M	3vs		936.542
160	RN	X	-	-	3r		39.944
161	RN(tMG/R)	X	Mnu	M	3vs		18,886.290
162	pOT	Y	Lp	W	3o		321.028
163	RN	X	-	-	3r		30.659
164	RN	X	-	-	3r		40.578
165	RN	X	-	-	3r		7.306
166	pOT	X	Lp	W	3o		88.388
167	pOT	X	Lp	W	3o		95.824

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "ROSLYN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
168	RN(tMG/R)	Y	Mn	M	3vs		2,489.565
169	pOT/sGO/tMG	Y	Lu	W	3o		373.871
170	sGO	Y	Lpk	D	2d		206.552
171	RN(tMG/R)	Y	Mn	D	3vs		712.056
172	sgGE, sgGK	X	Mrnk	D	2d		20.642
174	RN	X	-	-	3r		39.062
175	pOT/sGO(RN)	X	Lu	W	3o		531.576
176	RN	X	-	-	3r		36.428
177	pOT/sGO(RN)	Y	Lu	W	3o		337.175
178	pAP	Y	Lp	W	3o		268.839
179	RN(tMG/R)	X	Mn	M	3vs		53.544
180	RN(tMG/R)	Y	Mn	M	3vs		1,428.889
181	smGO, smGK(RN)	Y	Mn	M	2i	3r	984.041
182	R	Y	-	-	3r		15.234
183	RN	X	-	-	3r		18.419
184	RN	X	-	-	3r		45.917
185	RN	X	-	-	3r		118.597
186	RN	X	-	-	3r		31.600
187	RN	Y	-	-	3r		10.242
188	RN	Y	-	-	3r		8.252
189	RN	Y	-	-	3r		12.627
191	pAP	X	Lp	W	3o		7.410
192	smGO, smGK(RN)	X	Mn	M	2i	3r	1,321.564
193	smGO	Y	Ld	D	2d		258.576
194	smGO(pOT, RN)	X	Lu	W	2p	3o	729.651
196	sGO/RN(RN)	X	Lu	M	2sm	3r	1,301.438
197	tMG/R(RN)	X	Lu	D	2ss	3r	30.274
198	tMG/R(RN)	X	Lu	D	2ss	3r	237.884
199	sgGE, sgGK(RN)	X	Mrk	D	2d	2ss	955.109
200	RN(tMG/R)	X	Mn	M	3vs		336.467
201	tMG/R(RN, pOT)	X	Lu	M	2sm	3r	421.385
202	tMG/R(RN, pOT)	X	Lu	M	2sm	3r	241.442
204	RN(tMG/R)	Y	Mn	M	3vs		2,826.105
205	RN(tMG/R)	X	Mnj	M	3vs		2,495.511
206	tMG/R(RN)	X	Lu	M	2sm	3r	1,073.486
207	tMG/R(RN)	X	Lu	M	2sm	3r	44.047
208	pAP	X	Lp	W	3o		81.093
209	RN(tMG/R)	X	Mj	M	3vs		25,714.050
210	RN(tMG/R)	X	Mnj	M	3vs		2,033.327
211	sGO/tMG(pOT)	X	Lp	M	2i	3o	165.631
212	sGO/tMG(pOT)	X	Lp	M	2i	3o	48.510

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "ROSLYN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
213	RN(tMG/R)	X	Hj	M	3vs		2,184.754
214	RN(tMG, pOT/R)	Y	Mu	M	2sm	3o	1,131.441
215	RN(tMG/R)	X	Hnr	M	3vs		3,571.172
216	pOT	X	Lp	W	3o		183.481
217	pOT	X	Lp	W	3o		40.777
218	pOT	X	Lp	W	3o		64.391
219	tMG/R	X	Lp	M	2sm		33.151
220	psAP	X	Lp	W	3o		176.593
221	tMG/R(RN)	X	Lu	M	2sm	3r	104.237
222	tMG/R(RN)	X	Lu	M	2sm	3r	117.238
223	tMG/R(RN)	X	Lu	M	2sm	3r	172.084
224	tMG/R	X	Lu	M	2sm		185.954
225	RN(tMG/R)	X	Hj	M	3vs		2,343.517
226	RN(tMG/R)	Y	Hnj	M	3vs		1,036.939
227	RN(tMG, pOT/R)	X	Hj	M	2sm	3o	1,833.683
228	pOT	X	Lp	W	3o		89.564
229	RN(tMG/R)	X	Hj	M	3vs		5,423.875
230	tMG/R(RN)	X	Lu	M	2sm	3r	1,061.167
231	RP	X	-	-	3r		70.302
232	tMG/R(RN)	X	Lu	M	2sm	3r	277.865
233	RN(tMG/R)	X	Hj	D	3vs		4,047.953
234	tMG/RN	X	Hn(Mu)	D	2ss		190.071
236	tMG/RP	X	Lu	M	2sm		286.583
237	CW	X	Ms	D	3r		53.229
238	RN	X	Mn	D	3r		24.689
239	tMG/RN	X	Hn(Mu)	D	2ss		363.498
240	pOT	X	Lp	W	3o		52.898
241	RP(tMG/R)	X	Lu	M	3vs		1,908.557
242	tMG/RP(RN)	X	Lu	M	2sm	3r	2,599.473
243	tMG/RP(RN)	X	Lu	M	2sm	3r	588.575
244	sGO	X	Lu	D	2d		93.153
245	RP(tMG/R)	X	Lu	M	3vs		963.224
246	RN(tMG/R)	X	Hj	M	3vs		7,529.740
247	spAP	X	Lp	W	2p		211.145
248	tMG/RN(RN)	X	Mu	M	2sm	3r	2,355.969
249	RN	X	-	-	3r		25.022
251	RN	X	-	-	3r		82.351
252	RN	X	-	-	3r		38.965
253	tMG/R(RN)	X	Lu	M	2sm	3r	84.961
254	sGO	X	Lp	M	2i		106.489
255	sGO	X	Lp	M	2i		29.985

REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "ROSLYN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
256	spAP	X	Lp	W	2p		98.677
257	tMG/R(RN)	X	Lu	M	2sm	3r	118.922
258	sgO	X	Lp	Dh	2d		55.855
259	sgO	X	Lp	M	2i		69.586
260	sgGO/R(RN, pOT)	Y	Lu	M	2sm	3r	774.736
261	tMG/R(RN)	X	Lu	D	2ss	3r	132.359
262	sgGO	X	Lu	M	2i		90.773
263	RN(tMG/R)	Y	Mu	M	3vs		2,310.325
264	RN(tMG/R)	Y	Mnj	M	3vs		154.188
266	RN(tMG/R)	Y	Mnj	M	3vs		60.875
268	RN(tMG/R)	Y	Hj	M	3vs		9.115
269	sgGO/R(RN, pOT)	Y	Lu	M	2sm	3r	235.875
270	pOT/sgO	Y	Lp	W	3o		153.429
271	sgGO/R(RN, pOT)	X	Lu	M	2sm	3r	221.724
272	pOT	X	Lp	W	3o		98.863
273	sgGO(RN)	Y	Lu	D	2d		1,057.808
274	pOT/sgO	X	Lp	W	3o		44.592
275	sgO/tbMG(mAP, p OT, RNY)	X	Lup	Mh	2i	1c	1,607.011
277	sgO/tbMG/R	X	Lu	M	2sm		242.153
278	sgO	Y	Lpt	D	2d		206.029
279	sgO/R	X	Lu	D	2ss		66.037
280	sgGO	Y	Lpt	D	2d		659.090
281	sAP	X	Lp	W	2p		207.935
282	sgGO(RN)	X	Lu	D	2d	3r	212.349
283	sgGO	X	Lp	D	2d		101.117
284	sgGO	X	Lp	D	2d		64.180
285	pAP	X	Lp	W	3o		83.083
286	sgO/RP	X	Lu	M	2sm		143.685
287	RN	X	-	-	3r		24.122
288	RN(tMG/R)	X	Hj	M	3vs		26.423
289	RN(tMG/R)	X	Hj	M	3vs		12,778.540
290	pOT/sgO/R	X	Lu	W	3o		23.057
291	sgGO	X	Lpt	D	2d		67.279
292	sgO	X	Lpt	D	2d		24.435
293	sgO	X	Lpt	D	2d		37.408
294	sgO	X	Lpt	D	2d		27.510
295	sgGO	Y	Lpt	D	2d		53.827
296	sgGO	X	Lpt	D	2d		23.925
297	sgGO	X	Lpt	D	2d		42.138
298	sgGO	X	Lpt	D	2d		69.032
299	sgGO	Y	Lpt	D	2d		82.797

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REPORT ON SOIL ATTRIBUTES
FOR MAPSHEET "ROSLYN LAKE"

POLY- NO	LANDFORM	ACCESS	TOPO- GRAPHY	DRAIN	DOM- PRIME	SUB- PRIME	AREA (HA)
=====	=====	=====	=====	=====	=====	=====	=====
300	sgGO	X	Lptk	D	2d		252.332
301	sgGO	Y	Lptk	D	2d		98.879
302	sgGO	X	Lptk	D	2d		504.984
303	sgGO(RN)	X	Lu	M	2i	3r	91.427
304	RN	X	-	-	3r		72.145
305	sgGO	X	Lptk	D	2d		28.844
306	sgGO	Y	Lptk	D	2d		150.088
307	sgGO	Y	Lptk	D	2d		223.873
308	sgGO	X	Lptk	D	2d		122,810.700
309	sgGO	X	Lptk	D	2d		18.674
310	sgGO	Y	Lptk	D	2d		2.907
311	sgGO	Y	Lptk	D	2d		32.177
312	sgGO	X	Lptk	D	2d		16.058
313	sgGO(RN)	X	Lu	Dh	2d	3r	169.496
314	RN(tMG/R)	X	Hj	M	3vs		32.150
315	RN(tMG/R)	X	Hj	M	3vs		64.262
316	gsGO(gAP)	X	Lp	D(M)	2d		12.662
317	gsGO(gAP)	Y	Lp	D(M)	2d		140.392
318	gsGO(gAP)	X	Lp	D(M)	2d		31.030
319	sgGO(gRN)	X	Lp	M	2i	3r	132.286
320	RN(tMG/R)	Y	Mnj	M	3vs		11.744
321	sgGO/tMG	X	Lu	M	2di		41.931
322	sgGO/tMG	Y	Lu	M	2d		97.677
323	sgGO/tMG	Y	Lu	M	2d		105.859
324	tbMG(RN, pDT)	Y	Luw	M	2i	3r	389.570
325	pDT	X	Lp	W	3o		70.825
326	RN(tMG/R)	X	Mnj	M	3vs		24.994
327	RN(tMG/R)	X	Hj	M	3vs		5,034.044
328	smAP	X	Lp	M	1c		928.637
329	sgGO, tsMG/R	X	Lu	M	2i	2ss	88.160
330	tMG/R(RN)	X	Lu	M	2sm	3r	132.754
331	spAP	X	Lp	W	2p		83.388
332	tMG/R(RN)	X	Lu	M	2sm	3r	344.075
333	tMG/RP(RN)	X	Lu	M	2sm	3r	208.182
334	pDT/RP	X	Lu	W	3o		129.150
335	pDT/RP	X	Lu	W	3o		47.157
336	rLB/rCT	X	Hs	D	3r		50.927
337	trCW	X	Hs	D	3r		324.411
338	rCT	Y	Hs	D	3r		305.244
339	RL(tMG/RL)	X	Mj	D	3vs		1,991.156
340	sgGO(sAP)	Y	Lpt	D(M)	2d		388.445

2/11/87

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REPORT ON SOIL ATTRIBUTES FOR MAPSHEET "ROSLYN LAKE"

[illegible]

APPENDIX "E"



/* THIS CPL GENERATES SOIL REPORT #1

/* FOR THUNDER BAY(OMNR) SOILS

/* ATTRIBUTE LISTING BY POLYNO

/* NORTHWAY MAP TECHNOLOGY

COMO SOIL_REPORT.COMO

&DATA ARC

INFO

SEL SOIL.PAT

MOD NEWSOIL.PAT

ADIR P079900287>TOOLS>INFO

TAKE DATA ARC SOIL.PGM

RUN SOIL.PGM

Q STOP

ADDITEM NEWSOIL.PAT NEWSOIL.PAT POLYNO 4 5 N 0

ADDITEM SOIL.ATT SOIL.ATT AREA 4 12 F 3

INFO

SEL NEWSOIL.PAT

CALC POLYNO = SOIL-ID

RES AREA GT 0 AND POLYNO NE 999

NSEL

PURGE

Y

SEL NEWSOIL.PAT RO

RELATE SOIL.ATT BY POLYNO

CALC \$1AREA = AREA

SEL SOIL.ATT

RES AREA = 0.00

PURGE

Y

CALC AREA = AREA / 10000

RES AREA LT 0.00

PURGE

Y

REPORT SOIL.RPT LONG

2

3

POLYNO

POLY-

NO

==

LANDFORM

LANDFORM

,==

ACCESS

ACCESS

,==

TOPOGRAPHY

TOPO-
GRAPHY

==

DRAIN

DRAIN

, ==

DOMPRIME

DOM-
PRIME

==

SUBPRIME

SUB-
PRIME

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AREA

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AREA

(HA), ==

'REPORT ON SOIL ATTRIBUTES'
'FOR MAPSHEET "PAKWASH LAKE"'

Y

N

50

Q STOP

Q

&END

COMO -E

&RETURN

PROGRAM NAME: SOIL.PGM

10000 PROGRAM SECTION ONE

3

10001 SEL SOIL.PAT

10002 SORT ON SOIL-ID

10003 REL NEWSOIL.PAT BY SOIL-ID WITH FILL

10004 CALC \$NUM1 = 0.0

10005 CALC \$NUM2 = 999

20000 PROGRAM SECTION TWO

20001 IF SOIL-ID = \$NUM2

20002 CALC \$NUM1 = \$NUM1 + AREA

20003 CALC \$NUM2 = SOIL-ID

20004 CALC \$1AREA = \$NUM1

20005 ELSE

20006 IF SOIL-ID NE \$NUM2

20007 CALC \$NUM1 = AREA

20008 CALC \$NUM2 = SOIL-ID

20009 CALC \$1AREA = AREA

20010 ENDIF

20011 ENDIF

20012 IF \$RECNO = \$NOREC

20013 CALC \$1AREA = \$NUM1

20014 ENDIF

30000 PROGRAM END

APPENDIX "F"

```
/* THIS CPL GENERATES SOIL REPORT #2
/* FOR THUNDER BAY(OMNR) SOILS
/* AREA REPORT BY DOMPRIME/SUBPRIME
/* NORTHWAY MAP TECHNOLOGY
COMO SOIL2_REPORT.COMO
```

```
&DATA ARC
```

```
INFO
```

```
SEL SOIL.ATT
```

```
REDEFINE
```

```
46
```

```
PRIME
```

```
10
```

```
10
```

```
C
```

```
MOD NEWSOIL.ATT
```

```
Q STOP
```

```
ADDITEM NEWSOIL.ATT NEWSOIL.ATT TOTAL 4 12 F 3
```

```
ADDITEM NEWSOIL.ATT NEWSOIL.ATT PERCENT 4 12 F 3
```

```
INFO
```

```
ADIR P079900287>TOOLS>INFO
```

```
TAKE DATA ARC SOIL2.PGM
```

```
RUN SOIL2.PGM
```

```
SEL NEWSOIL.ATT
```

```
REL SOIL.ATT BY POLYNO
```

```
CALC MAPNO = $1MAPNO
```

```
MOVE $1LANDFORM TO LANDFORM
```

```
MOVE $1ACCESS TO ACCESS
```

```
MOVE $1TOPOGRAPHY TO TOPOGRAPHY
```

```
MOVE $1DRAIN TO DRAIN
```

```
CALC PERCENT = AREA / TOTAL * 100
```

```
REPORT SOIL2.RPT LONG
```

```
3
```

```
3
```

```
DOMPRIME
```

```
B,C
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DOM-
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PRIME
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SUBPRIME
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SUB-
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PRIME
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AREA
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AREA
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PERCENT
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CENT
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'SOIL REPORT'
'BY DOMPRIME/SUBPRIME'
'FOR "PAKWASH LAKE"
Y
N

Q STOP
Q
&END
COMO -E
&RETURN

PROGRAM NAME: SOIL2.PGM

10000 PROGRAM SECTION ONE

10001 SEL SOIL. ATT

10002 SORT ON DOMPRIME, SUBPRIME

10003 REL NEWSOIL. ATT BY PRIME WITH FILL

10004 FORMAT \$CHR1, 16

10005 FORMAT \$NUM3, 4, 12, F, 3

10006 FORMAT \$CHR4, 16

10007 FORMAT \$NUM6, 4, 12, F, 3

10008 FORMAT \$NUM7, 4, 12, F, 3

10009 FORMAT \$CHRB, 16

10010 MOVE ' ' TO \$CHR1

10011 MOVE ' ' TO \$CHR4

10012 MOVE ' ' TO \$CHRB

10013 CALC \$NUM3 = 0.0

10014 CALC \$NUM6 = 0.0

10015 CALC \$NUM7 = 0.0

20000 PROGRAM SECTION TWO

20001 IF \$RECND EQ 1

20002 MOVE PRIME TO \$CHRB

20003 ENDIF

20004 MOVE PRIME TO \$CHR1

20005 CALC \$NUM7 = \$NUM7 + AREA

20006 IF \$CHR1 EQ \$CHRB

20007 CALC \$NUM6 = \$NUM6 + AREA

20008 ENDIF

20009 IF \$CHR1 NE \$CHRB

20010 MOVE \$CHRB TO PRIME

20011 MOVE \$CHR1 TO \$CHRB

20012 CALC \$1AREA = \$NUM6

20013 CALC \$NUM6 = AREA

20014 MOVE \$CHRB TO PRIME

20015 ENDIF

20016 IF \$RECND EQ \$NOREC

20017 CALC \$1AREA = \$NUM6

20018 ENDIF

30000 PROGRAM SECTION THREE

30001 MOVE ' ' TO \$CHRB

30002 CALC \$1TOTAL = \$NUM7

30003 CALC \$1POLYND = POLYND

40000 PROGRAM END

50000 PROGRAM END

APPENDIX "G"


```
/* THIS CPL GENERATES SOIL REPORT #3
/* FOR THUNDER BAY(OMNR) SOILS
/* AREA REPORT BY STRATA
COMO SOIL3_REPORT.COMO
&DATA ARC
ADDITEM NEWSOIL.ATT NEWSOIL.ATT STRATA 4 4 1
INFO
SEL NEWSOIL.ATT
MOD REP3.ATT
```

```
SEL NEWSOIL.PAT
RES AREA GT 0 AND POLYNO NE 999
NSEL
PURGE
Y
REL REP3.ATT BY POLYNO WITH FILL
CALC $1AREA = AREA
SEL REP3.ATT
REL STRATA.ATT BY POLYNO
CALC STRATA = $1STRATA
SEL NEWSOIL.ATT
MOD REPORT3.ATT
```

```
SEL REP3.ATT
SORT ON STRATA
RES AREA LT 0.00
PURGE
Y
ASEL
CALC AREA = AREA / 10000
ADIR P079900287>TOOLS>INFO
TAKE DATA ARC SOIL3.PGM
RUN SOIL3.PGM
SEL REPORT3.ATT
CALC PERCENT = AREA / TOTAL * 100
SEL REPORT3.ATT
RES STRATA = 1
MOVE 'ME,MH' TO LANDFORM
ASEL
RES STRATA = 2
MOVE 'MG' TO LANDFORM
ASEL
RES STRATA = 3
MOVE 'GE,CK' TO LANDFORM
ASEL
RES STRATA = 4
MOVE 'GD,GO,LB,LD' TO LANDFORM
ASEL
RES STRATA = 5
MOVE 'LP' TO LANDFORM
ASEL
RES STRATA = 6
```

```
MOVE 'DT' TO LANDFORM
ASEL
RES STRATA = 7
MOVE 'RL,RP' TO LANDFORM
ASEL
RES STRATA = 8
MOVE 'RN,RR' TO LANDFORM
ASEL
RES STRATA = 9
MOVE '/R' TO LANDFORM
ASEL
RES STRATA = 10
MOVE 'AP' TO LANDFORM
ASEL
RES AREA GT 0.00
REPORT SOIL3.RPT LONG
3
3
```

```
STRATA
B,C,6
STRATA
,==
LANDFORM
```

```
LAND-
FORM
==
AREA
T
AREA
(Ha),==
PERCENT
T
PER-
CENT
==
```

```
'SOIL REPORT'
'BY STRATA'
'FOR "PAKWASH LAKE"'
Y
N
```

```
Q STOP
Q
&END
COMO -E
&RETURN
```

PROGRAM NAME: SOIL3.PGM

10000 PROGRAM SECTION ONE

10001 SEL REP3.ATT

10002 SORT STRATA

10003 REL REPORT3.ATT STRATA WITH FILL

10004 CALC \$1POLYND = POLYND

10005 CALC \$NUM1 = 0.0

10006 CALC \$NUM2 = 999

10007 CALC \$NUM3 = 0.0

20000 PROGRAM SECTION TWO

20001 CALC \$NUM3 = \$NUM3 + AREA

20002 IF STRATA EQ \$NUM2

20003 CALC \$NUM1 = \$NUM1 + AREA

20004 CALC \$1AREA = \$NUM1

20005 ELSE

20006 IF STRATA GE 0

20007 CALC \$NUM1 = AREA

20008 CALC \$NUM2 = STRATA

20009 CALC \$1AREA = AREA

20010 ENDIF

20011 ENDIF

20012 IF \$RECNO EQ \$NOREC

20013 CALC \$1AREA = \$NUM1

20014 ENDIF

30000 PROGRAM SECTION THREE

40000 PROGRAM SECTION

40001 CALC \$1TOTAL = \$NUM3

50000 PROGRAM END

APPENDIX "H"

APPENDIX "H"

PAKWASH
SITE 5107
FILE #1

Page No.
01/01/80

DIST RICT	MAP NUMB	SITE NUMB	POLY NUMB	DOM ON CLS	D80	DCA	DDM	DPM	DWG	DBL	DBR	PERC EBR	PERC SBTN	LREL TYPE	LREL DR INT	MR	PRM SUB CLASS
NA	5107	1	445	4 MULL	26	200	200	200	200	200	200	0	0 F	0 F	1 E	0	2 d
NA	5107	2	445	6 MULL	30	200	200	200	200	200	200	0	0 F	0 F	5 E	0	2 d
NA	5107	3	445	4 MULL	30	200	200	200	200	200	200	0	0 F	0 F	5 E	0	2 d
NA	5107	4	445	10 MOR	35	200	200	200	200	200	200	0	15 F	0 F	2 W	0	2 d
NA	5107	5	445	4 MULL	36	200	200	200	200	200	200	0	10 L/M	0 F	3 W	2	1 f
NA	5107	6	78	42 PHOR	42	200	200	200	200	42	200	0	0 D	0 D	6 VP	8	3 o
NA	5107	7	78	70 PHOR	70	200	200	200	200	70	200	0	0 D	0 D	6 VP	8	3 o
NA	5107	8	78	30 PHOR	30	200	200	200	200	30	200	0	0 D	0 D	6 VP	8	3 o
NA	5107	9	154	4 MULL	25	200	200	200	200	200	200	0	0 F	0 F	1 E	0	2 d
NA	5107	10	154	6 MOR	25	200	200	200	200	200	200	0	0 F	0 F	1 E	0	2 d
NA	5107	11	154	4 MULL	22	200	200	200	200	200	200	0	0 F	0 F	3 B	1	1 f
NA	5107	12	154	11 MOR	26	200	200	200	200	200	200	0	10 F	0 F	1 E	0	2 d
NA	5107	13	154	6 MULL	25	200	200	200	200	200	200	0	0 L	0 L	3 E	0	2 d
NA	5107	14	358	8 MOR	80	80	200	200	200	200	200	0	0 L	0 L	5 MW	2	1 f
NA	5107	15	358	4 MOR	75	75	200	200	200	200	200	0	0 L	0 L	5 MW	2	1 f
NA	5107	16	358	3 MOR	60	60	200	200	200	200	200	0	0 L	0 L	5 MW	3	1 f
NA	5107	17	358	12 MOR	80	80	50	200	200	200	200	0	0 L	0 L	5 MW	3	1 f
NA	5107	18	358	4 MOR	60	60	40	200	200	200	200	0	0 L	0 L	5 MW	3	1 f
NA	5107	19	795	10 MOR	30	200	35	200	200	200	200	0	0 L	0 L	4 I	4	2 i
NA	5107	20	795	16 MOR	75	200	200	200	200	200	200	0	0 L	0 L	2 MW	2	1 f
NA	5107	21	795	10 MOR	35	200	200	200	200	200	200	0	50 M	50 M	2 B	0	2 d
NA	5107	22	795	6 MOR	45	200	200	200	200	200	200	0	30 F/M	30 F/M	2 B	0	2 d
NA	5107	23	795	10 MOR	75	75	200	200	200	200	200	0	0 L	0 L	5 W	0	2 d
NA	5107	24	800	12 MOR	75	75	200	200	200	200	200	0	0 L	0 L	5 MW	0	2 d
NA	5107	25	800	16 MOR	75	75	200	200	200	200	200	0	0 L	0 L	5 MW	2	1 f
NA	5107	26	800	6 MOR	75	75	200	200	200	200	200	0	0 L	0 L	3 MW	0	3 vB
NA	5107	27	801	10 MOR	65	65	200	200	200	200	200	0	0 L	0 L	3 MW	2	1 f
NA	5107	28	801	10 MOR	70	70	200	200	200	200	200	0	0 L	0 L	3 MW	2	1 f
NA	5107	29	301	12 MOR	60	60	200	200	200	200	200	0	0 L	0 L	3 MW	2	1 f
NA	5107	30	301	0	55	200	200	200	200	200	200	0	0 F	0 F	3 W	2	2 w
NA	5107	31	301	0	55	200	200	200	200	200	200	0	0 F	0 F	3 W	2	2 w
NA	5107	32	301	4 MULL	50	200	200	200	200	200	200	0	0 F	0 F	4 E	0	2 d
NA	5107	33	294	4 MULL	30	200	200	200	200	200	200	0	0 F	0 F	4 E	0	2 d
NA	5107	34	294	10 MOR	30	200	200	200	200	200	200	0	0 F	0 F	4 E	0	2 d
NA	5107	35	294	6 MOR	55	200	200	200	200	200	200	0	0 L	0 L	3 W	2	1 f
NA	5107	36	294	10 MOR	70	200	200	200	200	200	200	0	0 L	0 L	3 MW	2	1 f
NA	5107	37	294	10 MOR	70	200	200	200	200	200	200	0	0 L	0 L	3 MW	2	1 f
NA	5107	38	294	8 MOR	30	200	200	200	200	200	200	10	60 B	60 B	2 W	2	2 w
NA	5107	39	301	15 MOR	45	200	200	200	200	200	200	0	30 L	30 L	4 MW	3	1 f
NA	5107	40	301	10 MOR	50	200	200	200	200	200	200	10	20 R	20 R	3 W	2	1 c
NA	5107	41	224	8 MOR	40	200	200	200	200	200	200	0	0 L	0 L	3 W	2	2 w
NA	5107	42	224	12 MOR	40	200	200	200	200	200	200	20	0 L	0 L	3 W	2	2 w
NA	5107	43	224	2 MOR	30	200	200	200	200	200	200	0	40 F/R	40 F/R	3 E	0	2 d
NA	5107	44	224	12 MOR	20	200	200	200	200	200	200	0	0 F	0 F	3 E	0	2 d
NA	5107	45	224	8 MOR	20	200	200	200	200	200	200	0	5 F	5 F	2 E	0	2 d
NA	5107	46	224	10 MOR	35	200	200	200	200	200	200	0	0 F	0 F	2 E	0	2 d
NA	5107	47	224	10 MOR	35	200	200	200	200	200	200	10	60 M/R	60 M/R	2 W	2	2 w
NA	5107	48	224	10 MOR	35	200	200	200	200	200	200	0	20 F/L	20 F/L	5 MW	3	1 c
NA	5107	49	224	10 MOR	30	200	200	200	200	200	200	0	0 F	0 F	3 E	0	2 d

PAKWASH
BITE 5107
FILE #1

DIST	MAP	SITE	POLY	LREL	LREL	LYR1	LYR2	LYR3	LYR4	LYR5	LYR6	LYR7
RICT	NUMB	NUMB	NUMB	TYPE	INT	THIK	THIK	THIK	THIK	THIK	THIK	THIK
NW	5107	1	445 F	1 fs	26 s	74						0
NW	5107	2	445 F	5 fs	30 s	70						0
NW	5107	3	445 F	5 fs	30 s	70						0
NW	5107	4	445 F	2 ls	5 g	20 g						0
NW	5107	5	445 L/M	3 sl	16 sl	20						0
NW	5107	6	78 0	6 c	28 c	30						0
NW	5107	7	78 0	6 c	20 c	30						0
NW	5107	8	78 0	6 c	40 c	30						0
NW	5107	9	154 F	1 gls	10 gls	15 s						0
NW	5107	10	154 F	1 fls	10 g	15 g						0
NW	5107	11	154 F	3 sl	22 sl	44 cl						0
NW	5107	12	154 F	1 cs	10 cs	16 cs						0
NW	5107	13	154 F	3 s	25 g	100						0
NW	5107	14	358 L	5 cl	20 c	10 c						0
NW	5107	15	358 L	5 cl	15 c	60 c						0
NW	5107	16	358 L	5 cl	15 c	45 c						0
NW	5107	17	358 L	5 cl	20 c	30 c						0
NW	5107	18	358 L	5 cl	30 c	30 c						0
NW	5107	19	795 M	4 ls	15 sl	15 sl						0
NW	5107	20	795 L	2 cl	25 c	35 sl						0
NW	5107	21	795 M	2 gls	10 gls	25						0
NW	5107	22	795 M	2 gls	10 fls	35						0
NW	5107	23	795 F/M	5 ls	10 fls	30 gls						0
NW	5107	24	800 L	5 cl	15 c	40 cl						0
NW	5107	25	800 B	2 l	25	0						0
NW	5107	26	800 L	3 cl	20 c	45 cl						0
NW	5107	27	801 L	3 cl	15 c	50 cl						0
NW	5107	28	801 L	3 cl	15 c	55 cl						0
NW	5107	29	301 L	3 cl	20 c	40						0
NW	5107	30	301 L	3 cl	20 c	35 lvfs						0
NW	5107	31	301 F	4 fs	30 s	70						0
NW	5107	32	301 F	3 flgs	20 g	30						0
NW	5107	33	294 F	4 fs	15 fs	15 s						0
NW	5107	34	294 F	4 fs	10 fs	20 fs						0
NW	5107	35	294 L	3 fs	15 cl	30 c						0
NW	5107	36	294 L	3 cl	20 c	30 c						0
NW	5107	37	294 L	3 cl	20 c	30 c						0
NW	5107	38	294 B	2 sl	5 sl	20 sl						0
NW	5107	39	301 L	4 cl	15 cl	30 c						0
NW	5107	40	301 R	3 sl	20 sl	30 sl						0
NW	5107	41	224 L	5 cl	20 cl	35						0
NW	5107	42	224 L	3 cl	20 fl	20						0
NW	5107	43	224 F/R	3 lg	30 cl	20						0
NW	5107	44	224 F	3 lg	20 g	30						0
NW	5107	45	224 F	2 fls	20 g	80						0
NW	5107	46	224 F	4 gls	35 g	10						0

POKIMASH
SITE 5107
FILE #1

DIST	MRP	SITE	POLY	DOM	DSO	DCA	DDM	DPM	DMB	DGL	DBR	PERC	PERC	LREL	LREL	DR	MR	PRM	SUB
RICT	NUMB	NUMB	NUMB	CLB								EBR	SBTN	TYPE	INT			CLASS	CLSS
NA	5107	50	261	10 MOR	70	70	200	200	200	200	200	0	0	L	5 MW	2	1	1	
NA	5107	51	261	10 MOR	70	70	200	200	200	200	200	0	0	L	4 MW	2	1	1	
NA	5107	52	276	20 MOR	40	200	200	200	20	20	70	10	0	L/R	6 P	6	2	2	P
NA	5107	53	276	10 MOR	45	200	200	200	200	200	200	0	0	L/F	1 W	2	1	1	
NA	5107	54	276	10 MOR	20	200	200	200	200	200	50	10	20	R	4 I	4	2	2	SM
NA	5107	55	276	15 MOR	20	200	200	200	200	200	50	20	30	R	2 E	1	3	3	VA
NA	5107	56	276	12 MOR	20	200	200	200	200	200	70	20	30	R	4 E	1	2	2	EF
NA	5107	57	827	5 MOD	30	200	200	200	200	200	200	0	0	F	5 E	0	0	0	2
NA	5107	58	827	10 MOR	30	200	200	200	200	200	100	50	10	F/R	3 E	0	0	0	2
NA	5107	59	827	6 MOD	45	200	200	200	200	200	200	0	0	F	5 E	0	0	0	2
NA	5107	60	827	10 MOD	40	200	200	200	200	200	200	0	0	F	2 E	0	0	0	2
NA	5107	61	827	8 MOD	0	200	200	200	200	200	100	0	0	F	5 W	1	1	1	C
NA	5107	62	827	16 PHOR	15	200	200	200	200	200	100	0	0	F	5 I	3	2	1	
NA	5107	63	670	6 MOR	25	200	200	200	200	200	200	0	0	F	5 E	0	0	0	2
NA	5107	64	670	10 MOR	25	200	200	200	200	200	200	0	0	F	1 E	0	0	0	2
NA	5107	65	670	8 MOD	25	200	200	200	200	200	200	0	0	F	5 E	0	0	0	2
NA	5107	66	670	10 MOR	25	200	200	200	200	200	200	0	0	F	5 E	0	0	0	2
NA	5107	67	570	0	35	200	200	200	200	200	200	0	0	F	5 E	0	0	0	2
NA	5107	68	637	10 MOR	20	200	200	200	20	20	40	0	0	F/L	1 P	5	5	2	P
NA	5107	69	637	6 MOR	25	200	200	200	200	200	200	0	0	L/R	2 B	1	1	2	EF
NA	5107	70	637	6 MOR	25	200	200	200	200	200	200	0	0	L	3 B	2	1	1	
NA	5107	71	637	8 MOR	70	70	45	200	200	200	200	0	0	L	1 MW	3	3	1	
NA	5107	72	637	6 MOR	70	70	50	200	200	200	200	0	0	L	4 MW	3	3	1	
NA	5107	73	637	9 MOR	75	75	200	200	200	200	200	0	0	L	1 MW	2	1	1	
NA	5107	74	861	10 MOR	70	70	200	200	200	200	200	0	0	L	5 MW	3	1	1	
NA	5107	75	861	8 MOR	50	200	200	200	200	200	200	0	0	L	4 MW	2	2	2	EF
NA	5107	76	861	10 MOR	25	200	200	200	200	200	80	0	0	L	1 E	0	0	0	2
NA	5107	77	855	10 MOR	25	200	200	200	200	200	200	0	0	F	2 W	0	0	0	1
NA	5107	78	874	10 MOR	25	200	200	200	200	200	100	0	0	F	4 E	0	0	0	3
NA	5107	79	874	10 MOR	15	200	200	200	200	200	15	70	10	R	4 E	0	0	0	2
NA	5107	80	874	10 MOR	25	200	200	200	200	200	50	0	0	M/R	3 B	1	1	2	SM
NA	5107	81	874	6 MOR	25	200	200	200	200	200	100	0	0	M/R	3 B	1	1	2	SM
NA	5107	82	874	10 MOR	30	200	200	200	200	200	200	0	0	F	4 E	0	0	0	2
NA	5107	83	874	50 PHOR	50	200	200	200	200	50	50	0	0	0	6 VP	8	8	3	0
NA	5107	84	874	10 MOR	25	200	200	200	200	200	200	20	0	L	1 MW	2	1	1	
NA	5107	85	827	8 MOR	25	200	200	200	200	200	100	0	0	L	2 W	1	1	1	C
NA	5107	86	827	4 MOD	30	200	200	200	200	200	200	0	0	F	4 E	0	0	0	2
NA	5107	87	827	6 MOR	30	200	200	200	200	200	200	0	0	F	1 E	0	0	0	2
NA	5107	88	827	6 MOR	25	200	200	200	200	200	70	10	10	M/R	3 E	0	0	0	2
NA	5107	89	827	40 PHOR	40	200	200	200	200	40	40	0	0	0	6 VP	8	8	3	0
NA	5107	90	855	9 MOR	25	200	200	200	200	200	200	0	0	F	4 E	0	0	0	2
NA	5107	91	855	8 MOD	25	200	200	200	200	200	200	0	0	F	3 E	0	0	0	2
NA	5107	92	855	10 MOR	25	200	200	200	200	200	200	0	0	F	1 E	0	0	0	2
NA	5107	93	855	8 MOR	25	200	200	200	200	200	200	0	0	F/L	4 W	1	1	1	C
NA	5107	94	855	10 MOR	30	200	200	200	200	200	60	10	80	M	3 W	1	1	2	SM
NA	5107	95	855	10 MOR	70	70	200	200	200	200	200	0	0	F/L	1 W	1	1	1	C

PAKIRGH
SITE 5107
FILE #1

DIST RICT	MAP NUMB	SITE NUMB	POLY NUMB	LREL TYPE	LREL INT	LVR1 THIK	LVR2 THIK	LVR2 TEXT	LVR2 THIK	LVR3 THIK	LVR3 TEXT	LVR4 THIK	LVR4 TEXT	LVR5 THIK	LVR5 TEXT	LVR6 THIK
NJ	5107	50	261	L	5 cl	20 c	50 c		30			0		0		0
NJ	5107	51	261	L	4 cl	20 c	50 c		30			0		0		0
NJ	5107	52	276	L/R	6 scl	10 scl	30 scl		30			0		0		0
NJ	5107	53	276	L/F	1 cl	15 c	30 scl		10	vfs		10	lvfs	35		0
NJ	5107	54	276	R	4 scl	20 vcl	20		0			0		0		0
NJ	5107	55	276	R	2 scl	20 g	10		0			0		0		0
NJ	5107	56	276	R	4 scl	20 scl	50		0			0		0		0
NJ	5107	57	827	F	5 ls	10 cgl	20 gv		70			0		0		0
NJ	5107	58	827	F/R	3 ls	10 gvl	20 gv		70			0		0		0
NJ	5107	59	827	F	5 lcs	15 s	30 fs		55			0		0		0
NJ	5107	60	827	M	2 ls	10 gls	30 fgls		35			0		0		0
NJ	5107	61	827	F	5 ls	30 scl	30 g		10	d		40		0		0
NJ	5107	62	827	F	5 s	15 s	50 g		35			0		0		0
NJ	5107	63	670	F	5 fs	10 fs	15 fs		70			0		0		0
NJ	5107	64	670	F	1 fs	10 fs	15 fs		70			0		0		0
NJ	5107	65	670	F	1 gs	25 cobg	75		0			0		0		0
NJ	5107	66	670	F	5 fs	10 fs	15 mg		35			0		0		0
NJ	5107	67	670	F	5 fs	10 fs	25 cg		25			0		0		0
NJ	5107	68	637	F/L	1 fs	20 fs	20 c		60			0		0		0
NJ	5107	69	637	L/R	2 vfel	10 cl	15 vfel		15			0		0		0
NJ	5107	70	637	L	3 vfel	10 cl	15 c		70	vfs		10		0		0
NJ	5107	71	637	L	1 vfel	20 c	25 c		25	c		30		0		0
NJ	5107	72	637	L	4 cl	20 c	50 cl		30			0		0		0
NJ	5107	73	637	L	1 cl	15 c	60 cl		25			0		0		0
NJ	5107	74	861	L	5 vfel	15 cl	15 c		40	vfel		30		0		0
NJ	5107	75	861	L	4 vfel	15 cl	15 c		40	cl		30		0		0
NJ	5107	76	861	L	1 lvfs	10 vfel	20 vfel		50			0		0		0
NJ	5107	77	835	F	1 lfs	10 scl	15 fs		35	gvs		40		0		0
NJ	5107	78	874	F	2 lfs	10 scl	15 scl		50			0		0		0
NJ	5107	79	874	R	4 gs	15	0		0			0		0		0
NJ	5107	80	874	M/R	3 scl	25	0		0			0		0		0
NJ	5107	81	874	M/R	3 scl	25 cg	35		0			0		0		0
NJ	5107	82	874	F	4 fs	10 s	20 s		30	s		40		0		0
NJ	5107	83	874	O	6 s	50	0		0			0		0		0
NJ	5107	84	874	L	1 vfel	10 vfel	10 c		30	vfel		20	cl	30		0
NJ	5107	85	827	M	2 scl	25 scl	20		0			0		0		0
NJ	5107	86	827	F	4 lfs	10 lfs	20 s		70			0		0		0
NJ	5107	87	827	F	1 fs	15 lfs	15 s		70			0		0		0
NJ	5107	88	827	M/R	3 lfs	10 gs	15 g		35			0		0		0
NJ	5107	89	827	O	6 fs	60	0		0			0		0		0
NJ	5107	90	855	F	4 ls	10 ls	15 g		35	lvfs		40		0		0
NJ	5107	91	855	F	3 ls	0 ls	0 lvfs		40	vfel		10	vfel	25		0
NJ	5107	92	855	F	1 ls	10 ls	15 cg		50	g		20	vfs	10		0
NJ	5107	93	855	F/L	4 lvfs	10 lfs	15 lvfs		75			0		0		0
NJ	5107	94	855	M	3 gls	10 lg	20 g		10			0		0		0
NJ	5107	95	855	F/L	1 lfs	10 scl	10 vfel		30	vfel		20	vfel	10	vfs	20

01/01/80

MABIGOOD
SITE 5059
FILE #2

DIST	MAP	SITE	POLY	DOM	CH	CLS	DBO	DCA	DDM	DDH	DMS	DGL	DBR	PERC	PERC	LREL	LREL	DR	MR	PRM	SUB
RCT	NMB	NMB	NMB											EBR	BSN	TYPE	INT			CLS	CLS
2	5059	1	19	40	PHOR		40	200	40	200	40	200	200	0	0	LP	5 VP	7	3	0	
2	5059	2	19	2	MOR		10	200	200	200	200	200	10	70	50	M/R	2 R	0	3	VS	
2	5059	3	19	4	MOR		60	200	200	200	200	200	200	0	0	LP	4 MM	3	1	F	
2	5059	4	19	4	MULL		80	200	200	200	200	200	200	0	0	LP	3 I	5	1	F	
2	5059	5	19	5	MULL		80	200	200	200	200	200	200	0	0	LP	2 LP	3	3	1	C
2	5059	6	19	4	MULL		5	200	200	200	200	200	5	30	30	M/R	3 R	0	3	VS	
2	5059	7	37	90	PHOR		90	200	200	200	200	200	90	0	0	0	7 VP	7	7	3	0
2	5059	8	37	95	PHOR		95	200	200	200	200	200	95	0	0	0	7 VP	7	7	3	0
2	5059	9	37	100	PHOR		200	200	200	200	200	200	200	0	0	0	7 VP	7	7	3	0
2	5059	10	37	100	PHOR		200	200	200	200	200	200	200	0	0	0	7 VP	7	7	3	0
2	5059	11	37	100	PHOR		200	200	200	200	200	200	200	0	0	0	7 VP	7	7	3	0
2	5059	12	81	5	MOR		45	200	200	200	200	200	200	0	0	0	2 R	0	0	2	d
2	5059	13	81	4	MOR		45	200	200	200	200	200	200	0	0	0	3 MM	0	3	2	1
2	5059	14	81	8	MOR		80	200	200	200	200	200	200	0	0	0	5 I	3	5	2	1
2	5059	15	81	12	MOR		50	200	200	200	200	200	200	0	0	0	2 VR	0	0	2	d
2	5059	16	81	10	MOR		50	200	200	200	200	200	200	0	0	0	3 VR	0	0	2	d
2	5059	17	81	4	MOR		60	200	200	200	200	200	200	0	0	0	7 R	0	0	2	d
2	5059	18	80	2	MOR		40	200	200	200	200	200	200	0	0	0	7 R	0	0	2	d
2	5059	19	80	3	MOR		60	200	200	200	200	200	200	0	0	0	7 R	0	0	2	d
2	5059	20	80	5	MOR		60	200	200	200	200	200	200	0	0	0	7 R	1	1	2	d
2	5059	21	80	6	MOR		40	200	200	200	200	200	200	0	0	0	3 R	1	1	2	d
2	5059	22	80	2	MOR		30	200	200	200	200	200	200	0	0	0	4 R	1	1	2	d
2	5059	23	80	8	MOR		50	200	200	200	200	200	200	0	0	0	5 I	4	0	3	r
2	5059	24	110	5	MOR		40	200	200	200	200	200	200	0	0	0	3 VR	5	5	1	f
2	5059	25	110	5	MOR		80	200	200	200	200	200	200	0	0	0	5 P	0	0	2	d
2	5059	26	110	4	MOR		0	200	200	200	200	200	200	0	0	0	3 R	0	0	2	d
2	5059	27	110	10	MULL		80	200	200	200	200	200	200	0	0	0	4 M	2	7	3	0
2	5059	28	110	7	MOR		45	200	200	200	200	200	200	0	0	0	7 VP	6	5	1	f
2	5059	29	110	5	MULL		200	200	200	200	200	200	200	0	0	0	5 I	7	7	2	p
2	5059	30	188	100	PHOR		30	200	200	200	200	200	200	0	0	0	7 P	6	6	2	p
2	5059	31	188	7	MOR		35	200	200	200	200	200	200	0	0	0	5 I	5	5	1	f
2	5059	32	188	5	MOR		30	200	200	200	200	200	200	0	0	0	7 P	7	7	2	p
2	5059	33	188	30	MULL		40	200	200	200	200	200	200	0	0	0	7 VP	7	7	3	0
2	5059	34	188	4	PHOR		40	200	200	200	200	200	200	0	0	0	2 R	6	0	2	d
2	5059	101	188	4	MOR		30	200	200	200	200	200	200	0	0	0	2 R	6	0	2	d
2	5059	35	162	4	MOR		45	200	200	200	200	200	200	0	0	0	3 R	1	1	2	d
2	5059	36	162	6	MOR		50	200	200	200	200	200	200	0	0	0	5 I	4	4	2	1
2	5059	37	162	5	MOR		50	200	200	200	200	200	200	0	0	0	3 R	0	0	2	d
2	5059	38	162	4	MOR		4	200	200	200	200	200	200	0	0	0	2 VR	0	0	3	VS
2	5059	39	162	4	MOR		40	200	200	200	200	200	200	0	0	0	3 R	0	0	2	VS
2	5059	41	253	10	MULL		80	200	200	200	200	200	200	0	0	0	4 M	2	2	1	f
2	5059	42	253	30	MULL		80	200	200	200	200	200	200	0	0	0	5 I	4	4	1	f
2	5059	43	253	5	MULL		50	200	200	200	200	200	200	0	0	0	5 P	6	6	2	p
2	5059	44	253	7	MOR		80	200	200	200	200	200	200	0	0	0	2 R	1	1	2	p
2	5059	45	253	2	MULL		80	200	200	200	200	200	200	0	0	0	7 M	2	2	1	C
2	5059	47	98	3	MULL		80	200	200	200	200	200	200	0	0	0	7 M	3	3	1	f
2	5059	48	98	0			0	200	200	200	200	200	200	0	0	0	1 VR	0	0	3	r
2	5059	49	98	5	MULL		90	200	200	200	200	200	200	0	0	0	7 I	5	5	1	f

WA81600W
SITE 5059
FILE #2

DIST RICT	MAP NUMB	BITE NUMB	POLY NUMB	LREL TYPE	LREL INT TEXT	LYR1 THICK	LYR2 THICK	LYR2 TEXT	LYR3 THICK	LYR3 TEXT	LYR4 THICK	LYR4 TEXT	LYR5 THICK	LYR5 TEXT	LYR6 THICK	LYR6 TEXT
2	5059	1	19 LP		5 HJM	40 SICL	60		0		0		0		0	
2	5059	2	19 M/R		2 LB	10	0		0		0		0		0	
2	5059	3	19 LP		4 SICL	60 SIC	40		0		0		0		0	
2	5059	4	19 LP		3 BCL	10 SICL	90		0		0		0		0	
2	5059	5	19 LP		2 SIL	30 SICL	70		0		0		0		0	
2	5059	6	19 M/R		3 LB	5	5		0		0		0		0	
2	5059	7	37 0		7 MEB	90 SICL	10		0		0		0		0	
2	5059	8	37 0		7 MEB	95 SICL	5		0		0		0		0	
2	5059	9	37 0		7 MEB	100	0		0		0		0		0	
2	5059	10	37 0		7 MEB	100	0		0		0		0		0	
2	5059	11	37 0		7 FIB	100	0		0		0		0		0	
2	5059	12	81 M		2 Lms	30 vgLms	70		0		0		0		0	
2	5059	13	81 MR		3 cs	100	0		0		0		0		0	
2	5059	14	81 FO		5 fs	100	0		0		0		0		0	
2	5059	15	81 FO		5 fs	100	0		0		0		0		0	
2	5059	16	81 M		2 gLcs	10 vgLcs	90		0		0		0		0	
2	5059	17	81 M		3 gcs	100	0		0		0		0		0	
2	5059	18	80 FO		7 cs	40 vcs	60		0		0		0		0	
2	5059	19	80 FO		7 cs	60 vcs	40		0		0		0		0	
2	5059	20	80 FO		7 mcs	90 cs	10		0		0		0		0	
2	5059	21	80 FO		7 fs	100	0		0		0		0		0	
2	5059	22	80 FO		3 fs	100	0		0		0		0		0	
2	5059	23	80 FO		3 fs	100	0		0		0		0		0	
2	5059	24	110 M		4 LB	100	0		0		0		0		0	
2	5059	25	110 M		5 vFLB	60 FLB	30 BL		10		0		0		0	
2	5059	26	110 R		3	3	3		0		0		0		0	
2	5059	27	110 LP		5 SIL	10 SICL	30 CL		0		0		0		0	
2	5059	28	110 M		3 LB	100	0		0		0		0		0	
2	5059	29	110 LP		4 SIL	45 SICL	10 SC		45		0		0		0	
2	5059	30	188 0		7 MEB	100	0		0		0		0		0	
2	5059	31	188 LP		7 CL	20 SIC	80		0		0		0		0	
2	5059	32	188 LP		5 SIC	100	0		0		0		0		0	
2	5059	33	188 LP		7 SIC	100	0		0		0		0		0	
2	5059	34	188 LP		7 HJM	40 SIC	60		0		0		0		0	
2	5059	101	188 LP		7 SC	100	0		0		0		0		0	
2	5059	35	162 M		2 LB	100	0		0		0		0		0	
2	5059	36	162 M		3 LFB	100	0		0		0		0		0	
2	5059	37	162 M		5 LFS	100	0		0		0		0		0	
2	5059	38	162 M		3 LB	100	0		0		0		0		0	
2	5059	39	162 M		2 LB	5	5		0		0		0		0	
2	5059	40	162 M		3 LB	80	0		0		0		0		0	
2	5059	41	253 LP		4 BIC	30 SICL	15 BIC		55		0		0		0	
2	5059	42	253 LP		5 BICL	100	0		0		0		0		0	
2	5059	43	253 LP		5 SIL	30 SIC	100		0		0		0		0	
2	5059	44	253 LB/R		2 FB	50	0		0		0		0		0	
2	5059	45	253 LP		7 SIL	30 SICL	15 BIC		55		0		0		0	
2	5059	47	98 LP		7 SIL	10 SICL	20 BIC		70		0		0		0	
2	5059	48	98 R		1	0	0		0		0		0		0	
2	5059	49	98 LP		7 SIL	10 SICL	90		0		0		0		0	

WABIBOON
SITE 5059
FILE #2

DIST RICT	MAP NUMB	SITE NUMB	POLY NUMB	DOM OM CLS	D80	DCA	DOM	DPM	DMS	D8L	DBR	PERC EBR	PERC BSTN	LREL TYPE	LREL DIR INT	MR	PRM CLS	SUB CLS
2	5059	50	98	5 MULL	80	200	50	200	200	200	200	0	0	0 LP	7 I	4	1 I	1 I
2	5059	51	98	4 MULL	80	200	45	200	200	200	200	0	0	0 LP	7 I	4	1 I	1 I
2	5059	52	98	30 PHOR	30	200	200	200	200	200	30	30	70 R	6 VP	0	0	3 I	3 I
2	5059	53	101	8 MOR	75	200	200	200	200	200	200	0	0	60 FD	7 R	0	2 I	2 I
2	5059	54	101	5 MOR	50	200	30	200	200	200	200	0	0	0 LP	7 I	5	1 I	1 I
2	5059	55	101	4 MULL	60	200	30	200	200	200	200	0	0	0 LP	7 I	5	1 I	1 I
2	5059	56	101	35 PHOR	30	200	200	200	200	200	200	0	0	0 FD	6 VP	6	2 I	2 I
2	5059	58	101	10 MOR	70	200	10	10	10	10	0	0	0 LD	7 VP	6	2 I	2 I	
2	5059	59	126	3 PHOR	90	200	40	40	40	200	200	0	0	0 LP	5 P	6	1 I	1 I
2	5059	60	126	4 PHOR	50	200	5	10	10	10	200	0	0	0 LP	6 P	6	2 I	2 I
2	5059	61	126	4 MOR	80	200	50	50	50	90	200	0	0	0 LP	5 I	3	2 I	2 I
2	5059	62	126	5 MULL	50	200	40	200	200	200	200	0	0	0 L	5 MM	4	1 I	1 I
2	5059	63	126	8 MOR	60	200	60	200	200	200	200	0	0	20 FK	4 MM	3	2 I	2 I
2	5059	64	126	5 MOR	30	200	200	200	200	200	30	50	30 M/R	2 VR	0	0	2 I	2 I
2	5059	65	141	30 PHOR	60	200	20	20	20	200	200	0	0	0 FD	7 P	6	2 I	2 I
2	5059	66	141	7 MOR	80	200	50	200	200	200	200	0	0	0 LP	7 P	6	1 I	1 I
2	5059	67	141	8 MULL	80	200	200	200	200	200	200	0	0	0 FD/R	6 I	4	2 I	2 I
2	5059	68	141	30 MOR	40	200	30	30	60	60	200	20	0	0 LP	5 I	5	2 I	2 I
2	5059	69	141	10 MULL	90	200	200	200	10	10	200	0	0	0 LP	6 P	6	2 I	2 I
2	5059	70	141	20 PHOR	70	200	80	200	200	200	200	0	0	10 FK	5 MM	2	2 I	2 I
2	5059	71	139	5 MOR	50	200	200	200	200	200	200	0	0	80 FK	3 R	1	3 I	3 I
2	5059	72	139	5 MOR	70	200	200	200	200	200	200	0	0	80 FK	4 R	0	3 I	3 I
2	5059	73	139	5 MOR	60	200	80	200	200	200	200	0	0	60 FK	5 MM	2	2 I	2 I
2	5059	74	139	3 MOR	60	200	200	200	200	200	200	0	0	60 FK	7 R	1	2 I	2 I
2	5059	75	139	8 MOR	60	200	200	200	200	200	200	0	0	80 FK	1 R	0	3 I	3 I
2	5059	76	139	4 MOR	80	200	85	200	200	200	200	0	0	0 FK	7 MM	3	2 I	2 I
2	5059	77	139	2 MOR	80	200	200	200	200	200	200	0	0	0 FK	7 R	1	2 I	2 I
2	5059	78	139	2 MOR	90	90	95	95	200	200	200	0	0	0 LP	3 I	3	1 I	1 I
2	5059	79	141	3 MULL	80	200	80	200	200	200	200	0	0	0 LP	5 I	3	1 I	1 I
2	5059	80	141	4 MULL	90	90	95	200	200	200	200	0	0	0 LP	7 MM	3	1 I	1 I
2	5059	81	141	3 MULL	60	70	80	80	200	200	200	0	0	0 LP	7 I	3	1 I	1 I
2	5059	82	141	8 MOR	60	200	200	200	200	200	200	0	0	10 FD	2 VR	0	2 I	2 I
2	5059	83	287	4 MOR	60	200	80	200	200	200	200	0	0	0 FD	7 MM	2	2 I	2 I
2	5059	84	287	5 MOR	40	200	200	200	200	200	200	0	0	40 FK	3 VR	0	2 I	2 I
2	5059	85	312	5 MOR	40	200	200	200	200	200	200	0	0	40 FK	1 VR	0	2 I	2 I
2	5059	86	312	4 MOR	80	200	200	200	200	200	200	0	0	0 FK	4 R	1	2 I	2 I
2	5059	87	312	3 MOR	45	200	200	200	200	200	200	0	0	0 FK	5 R	1	2 I	2 I
2	5059	88	312	15 PHOR	30	200	30	30	30	30	200	0	0	0 FK	6 P	6	2 I	2 I
2	5059	89	312	8 MOR	60	200	200	200	200	200	200	0	0	0 F	4 R	0	2 I	2 I
2	5059	90	312	7 MOR	60	200	200	200	200	200	200	0	0	0 FD	7 R	0	2 I	2 I
2	5059	91	287	8 MOR	45	200	200	200	200	200	200	0	0	0 FD	7 R	0	2 I	2 I
2	5059	92	287	8 MOR	60	200	200	200	200	200	200	0	0	0 FD	3 R	0	2 I	2 I
2	5059	93	287	8 MOR	60	200	200	200	200	200	200	0	0	0 FD	4 VR	0	2 I	2 I
2	5059	94	287	5 MOR	55	200	200	200	200	200	200	0	0	0 FD	7 R	0	2 I	2 I
2	5059	95	313	5 MOR	55	200	200	200	200	200	200	0	0	0 FD	7 R	0	2 I	2 I
2	5059	96	313	10 MOR	60	200	200	200	200	200	200	0	0	0 FD	7 R	0	2 I	2 I
2	5059	97	313	10 MOR	50	200	200	200	200	200	200	0	0	50 M	3 R	1	2 I	2 I
2	5059	98	313	7 MOR	50	200	200	200	200	200	200	0	0	0 FD	4 R	1	2 I	2 I
2	5059	99	313	8 MOR	60	200	10	10	50	200	200	0	0	0 FD	5 I	5	2 I	2 I

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DIST	MAP	SITE	POLY	LREL	LREL	LYR1	LYR2	LYR3	LYR4	LYR5	LYR6	LYR7
RICT	NUMB	NUMB	NUMB	TYPE	INT	THIK	THIK	THIK	THIK	THIK	THIK	THIK
2	5059	50	96	LP	7 S1CL	30 S1C	70	0	0	0	0	0
2	5059	51	96	LP	7 S1L	30 S1C	70	0	0	0	0	0
2	5059	52	96	R	6	0	0	0	0	0	0	0
2	5059	53	101	FD	7 LmB	100	0	0	0	0	0	0
2	5059	54	101	LP	7 S1L	10 S1CL	90	0	0	0	0	0
2	5059	55	101	LP	7 S1CL	35 S1C	65	0	0	0	0	0
2	5059	56	101	FD	6 F8	100	0	0	0	0	0	0
2	5059	58	101	LD	7 LvF8	100	0	0	0	0	0	0
2	5059	59	126	LP	5 S1L	30 mB	60 S1L	10	0	0	0	0
2	5059	60	126	LP	6 S1L	30 S1L	20 mB	10 S1L	40	0	0	0
2	5059	61	126	LP	5 mB	90 S1CL	10	0	0	0	0	0
2	5059	62	126	L	5 vF8L	30 S1L	20 S1CL	50	0	0	0	0
2	5059	63	126	FK	4 LmB	60 Lf8	40	0	0	0	0	0
2	5059	64	126	M/R	2 S1L	30	0	0	0	0	0	0
2	5059	65	141	FD	7 mB	100	0	0	0	0	0	0
2	5059	66	141	FD	7 mB	100	0	0	0	0	0	0
2	5059	67	141	LP	7 S1C	100	0	0	0	0	0	0
2	5059	68	141	FD/R	6 mB	30 F8	70	0	0	0	0	0
2	5059	69	141	LP	5 S1L	60 S1CL	40	0	0	0	0	0
2	5059	70	141	LP	6 S1vF8	90 S1CL	10	0	0	0	0	0
2	5059	71	139	FK	5 mB	100	0	0	0	0	0	0
2	5059	72	139	FK	3 Lf8	100	0	0	0	0	0	0
2	5059	73	139	FK	4 mB	100	0	0	0	0	0	0
2	5059	74	139	FK	5 F8	100	0	0	0	0	0	0
2	5059	75	139	FK	7 F8	100	0	0	0	0	0	0
2	5059	76	139	FK	1 LmB	100	0	0	0	0	0	0
2	5059	77	139	FK	7 F8	100	0	0	0	0	0	0
2	5059	78	139	FK	7 F8	100	0	0	0	0	0	0
2	5059	79	141	LP	3 S1L	50 S1CL	40 S1C	10	0	0	0	0
2	5059	80	141	LP	5 S1L	60 S1CL	10	0	0	0	0	0
2	5059	81	141	LP	7 S1CL	15 S1C	85	0	0	0	0	0
2	5059	82	141	LP	7 S1L	30 S1CL	70	0	0	0	0	0
2	5059	83	287	FD	2 gM8	30 gF8	70	0	0	0	0	0
2	5059	84	287	FD	7 mB	60 gM8	40	0	0	0	0	0
2	5059	85	312	FK	3 mB	100	0	0	0	0	0	0
2	5059	86	312	FK	1 F8	15 gF8	85	0	0	0	0	0
2	5059	87	312	FK	4 F8	100	0	0	0	0	0	0
2	5059	88	312	FK	5 F8	100	0	0	0	0	0	0
2	5059	89	312	FK	6 gM8	15 S1L	15 vF8	30 S1L	40	0	0	0
2	5059	90	312	F	4 F8	15 gF8	45 F8	40	0	0	0	0
2	5059	91	287	FD	7 mB	100	0	0	0	0	0	0
2	5059	92	287	FD	7 mB	100	0	0	0	0	0	0
2	5059	93	287	FD	3 mB	30 gM8	70	0	0	0	0	0
2	5059	94	287	FD	4 gM8	100	0	0	0	0	0	0
2	5059	95	313	FD	7 cB	30 gC8	70	0	0	0	0	0
2	5059	96	313	FD	7 cB	100	0	0	0	0	0	0
2	5059	97	313	M	3 F8	100	0	0	0	0	0	0
2	5059	98	313	FD	4 F8	45 gF8	5 gC8	50	0	0	0	0
2	5059	99	313	FD	5 Lf8	100	0	0	0	0	0	0

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WABIGOOD
SITE 5059
FILE #2

DIST	MRP	SITE	POLY	DOM	DM	CLS	DSO	DCA	DOM	DPM	DMB	DGL	DBR	PERC	PERC	PERC	LREL	LREL	DR	MR	PRM	SUB
RICT	NUMB	NUMB	NUMB											EBR	BSSTN	TYPE	INT	INT				CLS
2	5059	100	313	0			0	200	200	200	200	200	0	70	0	M/R	3	VR	0	3	V	
2	5059	57	101	7	MOR		80	200	200	200	200	200	200	0	10	FK	7	R	0	2	d	
2	5059	46	253	2	MALL		80	200	200	200	200	200	200	0	0	LP	7	W	2	1	f	

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WABIGOOH
SITE 5059
FILE #2

DIST	MDP	SITE	POLY	LREL	LREL	LVR1	LVR2	LVR3	LVR4	LVR5	LVR6
RICT	NUMB	NUMB	NUMB	TYPE	INT	TEXT	TEXT	TEXT	TEXT	TEXT	THIK
2	5059	100	313	M/R	3	0	0	0	0	0	0
2	5059	57	101	FK	7	100	0	0	0	0	0
2	5059	46	253	LP	7	100	0	0	0	0	0

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BEINE RIVER
SITE 5070
FILE #6

DIST	MRP	SITE	POLY	DOM	DBO	DCA	DDM	DDW	DWG	DEL	DBR	PERC	PERC	LREL	LREL	DR	MR	PRM	SUB	
RICT	NUMB	NUMB	NUMB	CLS								EBR	BSTN	TYPE	INT			CLSS	CLSS	
6	5070	1	93	10 MOR	60	200	200	200	200	200	200	0	30	MR	2 VR	0	0	2 d		
6	5070	2	93	8 MOR	50	200	200	200	200	200	200	0	20	MR	1 VR	0	0	2 d		
6	5070	3	93	10 MOR	30	200	200	200	200	200	30	10	40	M/R	7 R	0	0	3 vs		
6	5070	4	93	5 MOR	60	200	200	200	200	200	200	0	0	FD	2 VR	0	0	2 d		
6	5070	5	93	6 MOR	60	200	200	200	220	200	200	0	0	FD	7 VR	0	0	2 d		
6	5070	6	77	6 MOR	60	200	200	200	200	200	200	0	0	FK	5 R	0	0	2 d		
6	5070	7	77	4 MOR	40	200	200	200	200	200	200	0	0	FK	4 R	0	0	2 d		
6	5070	8	77	4 MOR	45	200	200	200	200	200	200	0	0	FK	3 R	1	0	2 d		
6	5070	9	77	4 MOR	60	200	200	200	200	200	200	0	0	FK	5 R	0	0	2 d		
6	5070	10	77	5 MOR	50	200	200	200	200	200	200	0	0	FD	7 R	0	0	2 d		
6	5070	11	95	8 MOR	60	200	80	200	200	200	200	0	0	FD	7 MM	2	0	2 d		
6	5070	12	95	5 MOR	45	200	200	200	200	200	200	0	10	FD	7 R	0	0	2 d		
6	5070	13	95	5 MOR	60	200	200	200	200	200	200	0	30	FD	7 R	0	0	2 d		
6	5070	14	95	5 MOR	80	200	200	200	200	200	200	0	0	FD	7 MM	2	0	2 d		
6	5070	15	95	10 MOR	80	200	70	200	200	200	200	0	0	FD	7 MM	2	0	2 d		
6	5070	16	170	7 MOR	55	200	200	200	200	200	200	30	50	M/R	2 W	2	0	2 sf		
6	5070	17	170	5 MOR	45	200	200	200	200	200	200	45	0	10	M/R	1 R	0	0	2 ss	
6	5070	18	170	15 PHOR	0	200	200	200	200	200	200	15	0	0	R	6 VP	7	0	3 r	
6	5070	19	170	4 MOR	60	200	60	200	200	200	200	75	20	40	M/R	3 MM	3	0	2 ss	
6	5070	20	170	100 PHOR	200	200	200	200	200	200	200	0	0	0	0	7 VP	7	0	3 o	
6	5070	21	170	100 PHOR	200	200	200	200	200	200	200	0	0	0	0	7 VP	7	0	3 o	
6	5070	22	170	5 MOR	45	200	200	200	200	200	200	45	30	40	M/R	4 R	0	0	2 ss	
6	5070	23	178	8 PHOR	40	200	20	200	40	200	200	0	0	0	0	7 p	6	0	2 p	
6	5070	24	178	80 PHOR	200	200	200	200	200	200	200	0	0	0	0	7 VP	7	0	3 o	
6	5070	25	178	100 PHOR	200	200	200	200	200	200	200	0	0	0	0	7 VP	7	0	3 o	
6	5070	26	178	100 PHOR	200	200	200	200	200	200	200	0	0	0	0	7 VP	7	0	3 o	
6	5070	27	178	100 PHOR	200	200	200	200	200	200	200	0	0	0	0	7 VP	7	0	3 o	
6	5070	28	157	8 MOR	30	200	20	200	200	200	200	0	0	FD	4 I	5	0	2 i		
6	5070	29	157	7 MOR	40	200	40	200	200	200	200	45	0	10	M/R	5 I	5	0	2 ss	
6	5070	30	157	8 PHOR	30	200	20	200	30	200	200	40	30	50	M/R	6 p	6	0	2 sf	
6	5070	31	157	10 MOR	30	200	200	200	200	200	200	60	40	M/R	2 W	2	0	2 sf		
6	5070	32	157	10 MOR	30	200	200	200	200	200	200	30	0	20	M/R	2 R	1	0	2 ss	
6	5070	33	157	5 MOR	45	200	200	200	200	200	200	45	0	0	M/R	4 R	0	0	2 ss	
6	5070	34	153	5 MULL	60	200	30	200	200	200	200	20	20	0	LP	2 I	5	0	1 c	
6	5070	35	153	4 MULL	40	200	20	200	20	200	200	0	0	LP	6 p	6	0	2 p		
6	5070	36	153	4 MOD	40	200	20	200	20	200	200	0	0	LP	6 p	6	0	2 p		
6	5070	37	153	8 MULL	40	200	20	200	200	200	200	0	0	LP	7 I	5	0	2 i		
6	5070	38	155	4 MOR	60	200	200	200	200	200	200	0	0	FD	1 R	0	0	2 d		
6	5070	39	1554	4 MOR	45	200	200	200	200	200	200	0	0	FD	3 R	0	0	2 d		
6	5070	40	155	8 MOR	40	200	200	200	200	200	200	0	0	FD	7 R	1	0	2 d		
6	5070	41	155	7 MOR	80	200	200	200	200	200	200	0	0	FD	7 R	0	0	2 d		
6	5070	42	155	7 MO	80	200	200	200	200	200	200	0	0	FD	7 R	1	0	2 d		
6	5070	43	156	10 MULL	0	200	200	200	200	200	200	10	0	0	L/R	5 W	2	0	3 vs	
6	5070	44	156	10 MULL	40	200	200	200	200	200	200	0	0	LP	7 VP	7	0	2 p		
6	5070	45	156	100 PHOR	200	200	200	200	200	200	200	0	0	0	0	7 VP	7	0	3 o	
6	5070	46	156	10 MULL	70	200	70	200	200	200	200	0	0	LP	7 I	3	0	1 f		
6	5070	47	156	8 MULL	80	200	20	200	20	200	200	0	0	LP	7 p	6	0	2 p		
6	5070	48	141	4 MULL	40	200	35	200	200	200	200	0	0	LP	7 I	5	0	1 f		
6	5070	49	141	4 MULL	60	200	40	200	200	200	200	0	0	LP	7 I	5	0	1 f		

SEINE RIVER
SITE 5070
FILE #6

DIST	MAP	SITE	POLY	LREL	LREL	LYR1	LYR2	LYR3	LYR4	LYR5	LYR6	LYR6
RICT	NUMB	NUMB	NUMB	TYPE	INT	THIK	THIK	THIK	THIK	THIK	THIK	THIK
6	5070	1	93 MR	2	gLCB	100	0	0	0	0	0	0
6	5070	2	93 MR	1	LMB	20	80	0	0	0	0	0
6	5070	3	93 M/R	7	LcB	30	0	0	0	0	0	0
6	5070	4	93 FO	2	gLCB	100	30	60	0	0	0	0
6	5070	5	93 FO	5	gCB	10	0	0	0	0	0	0
6	5070	6	77 FK	4	CB	30	70	0	0	0	0	0
6	5070	7	77 FK	7	FK	45	55	0	0	0	0	0
6	5070	8	77 FK	3	MB	50	10	0	0	0	0	0
6	5070	9	77 FK	5	MB	90	0	0	0	0	0	0
6	5070	10	77 FO	7	VCB	10	0	0	0	0	0	0
6	5070	11	95 FO	7	VCB	30	70	0	0	0	0	0
6	5070	12	95 FO	7	LcB	20	20	0	0	0	0	0
6	5070	13	95 FO	7	LcB	35	10	40	20	0	0	0
6	5070	14	95 FO	7	LcB	60	40	0	0	0	0	0
6	5070	15	95 FO	7	LcB	50	30	20	0	0	0	0
6	5070	16	170 M/R	2	LFB	10	40	10	0	0	0	0
6	5070	17	170 M/R	1	LcB	30	15	0	0	0	0	0
6	5070	18	170 R	6		0	0	0	0	0	0	0
6	5070	19	170 M/R	3	LcB	75	0	0	0	0	0	0
6	5070	20	170 O	7	MES	100	0	0	0	0	0	0
6	5070	21	170 O	7	FIB	100	0	0	0	0	0	0
6	5070	22	170 M/R	4	LVCB	45	0	0	0	0	0	0
6	5070	23	178 O	7	MB	100	0	0	0	0	0	0
6	5070	24	178 O	7	FIB	80	20	0	0	0	0	0
6	5070	25	178 O	7	FIB	50	50	0	0	0	0	0
6	5070	26	178 O	7	FIB	100	0	0	0	0	0	0
6	5070	27	178 O	7	FIB	100	0	0	0	0	0	0
6	5070	28	157 FO	4	FB	100	0	0	0	0	0	0
6	5070	29	157 M/R	5	LcB	35	10	0	0	0	0	0
6	5070	30	157 M/R	6	LVCB	30	15	0	0	0	0	0
6	5070	31	157 M/R	2	CB	30	0	0	0	0	0	0
6	5070	32	157 M/R	2	BL	15	15	0	0	0	0	0
6	5070	33	157 M/R	4	LB	45	0	0	0	0	0	0
6	5070	34	153 LP	2	BL	30	70	0	0	0	0	0
6	5070	35	153 LP	6	BL	50	30	20	0	0	0	0
6	5070	36	153 LP	6	BL	100	0	60	0	0	0	0
6	5070	37	153 LP	7	MB	10	0	0	0	0	0	0
6	5070	38	155 FO	1	MB	100	0	0	0	0	0	0
6	5070	39	1554 FO	3	MB	100	0	0	0	0	0	0
6	5070	40	155 FO	7	MB	80	20	0	0	0	0	0
6	5070	41	155 FO	7	MB	80	20	0	0	0	0	0
6	5070	42	155 FO	7	MB	20	80	0	0	0	0	0
6	5070	43	156 L/R	5	BL	10	0	0	0	0	0	0
6	5070	44	156 LP	7	CL	100	0	0	0	0	0	0
6	5070	45	156 O	7	MUM	100	0	0	0	0	0	0
6	5070	46	156 LP	7	CL	100	70	0	0	0	0	0
6	5070	47	156 LP	7	CL	100	0	0	0	0	0	0
6	5070	48	141 LP	7	CL	40	60	0	0	0	0	0
6	5070	49	141 LP	7	CL	60	40	0	0	0	0	0

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SEINE RIVER
SITE 5070
FILE #6

DIST RICT	MAP NUMB	SITE NUMB	POLY NUMB	DOM OM	CLS	DSD	DCR	DDM	DPM	DWG	DGL	DBR	PERC EBR	PERC SSTN	LAEL TYPE	LAEL DR	INT	MR	PRM SUB	CLS
6	5070	50	141	4	MULL	60	200	40	200	200	200	200	0	0	0 LP	7 I		5	1 f	
6	5070	51	141	4	MULL	60	200	200	60	200	200	200	0	0	0 LP	7 I		5	1 f	
6	5070	52	141	4	MOR	75	200	75	200	200	200	200	0	0	0 LD	7 I		3	2 1	
6	5070	53	85	4	MULL	40	200	200	20	200	200	200	0	0	0 LP	1 I		5	1 f	
6	5070	54	85	4	MULL	40	200	30	200	200	200	200	0	0	0 LP	1 I		5	1 f	
6	5070	55	85	5	MOR	40	200	20	200	40	60	200	0	0	0 FD	5 I		4	2 1	
6	5070	56	85	8	MOR	50	200	200	200	200	200	60	40	30	M/R	2 R		1	2 ss	
6	5070	57	85	4	MOR	60	200	200	200	200	200	200	0	0	0 FD	3 R		0	2 d	
6	5070	58	85	4	MOR	50	200	40	60	200	200	200	0	0	0 FD	5 I		4	2 1	
6	5070	59	238	20	PHOR	0	200	200	200	200	200	0	80	0	0 R	6 VP		7	3 r	
6	5070	60	238	0		0	200	200	200	200	200	0	70	0	0 R	1 VR		0	3 v	
6	5070	61	238	20	MOR	60	200	40	60	60	200	200	30	0	0 D/R	5 I		4	2 1	
6	5070	62	238	8	MOR	60	200	200	200	20	20	200	0	0	0 D	6 p		6	2 p	
6	5070	63	238	15	PHOR	0	200	200	200	200	200	0	50	30	0 R	6 VP		7	3 r	
6	5070	64	238	0		0	200	200	200	200	200	0	80	0	0 R	3 VR		0	3 r	
6	5070	65	242	0		0	200	200	200	200	200	0	90	0	0 R	2 VR		0	3 r	
6	5070	66	242	10	MOR	45	200	70	200	200	200	50	30	20	M/R	4 R		0	2 ss	
6	5070	67	242	8	MOR	70	200	200	70	200	200	200	0	0	0 M/R	3 MM		4	2 1	
6	5070	68	242	4	MOR	45	200	200	200	200	200	45	30	0	0 M/R	2 R		1	2 ss	
6	5070	69	242	5	MOR	60	200	95	200	200	200	200	40	20	0 M/R	1 MM		3	2 1	
6	5070	70	242	7	MOR	20	200	200	200	200	200	20	20	0	0 M/R	2 R		1	3 vs	
6	5070	71	102	10	MOR	40	200	200	200	200	200	40	0	0	0 M/R	4 R		0	2 ss	
6	5070	72	102	4	MOR	30	200	200	200	200	200	30	0	0	0 M/R	2 R		0	2 ss	
6	5070	73	102	4	MOR	50	200	200	200	200	200	200	0	0	0 FD	1 R		1	2 d	
6	5070	74	102	6	MOR	45	200	30	30	50	200	200	0	0	0 M/R	2 I		5	2 1	
6	5070	75	128	10	MOR	10	200	200	200	200	200	10	60	20	M/R	5 R		0	3 vr	
6	5070	76	128	4	PHOR	50	200	200	200	200	200	200	0	0	0 FD	5 R		1	2 d	
6	5070	77	128	0		200	200	200	200	200	200	200	0	0	0 FD	6 VP		7	3 o	
6	5070	78	128	10	MOR	45	200	200	200	200	200	45	0	0	0 FD/R	2 R		0	2 ss	
6	5070	79	128	5	MOR	50	200	200	200	200	200	200	0	0	0 FD	7 R		0	2 d	
6	5070	80	128	5	MOR	50	200	200	200	200	200	200	0	0	0 FD	7 R		0	2 d	
6	5070	81	102	8	MOR	50	200	200	200	200	200	70	20	20	M/R	4 R		1	2 ss	
6	5070	82	102	0		0	200	200	200	200	200	0	30	80	R	5 VR		0	2 sf	
6	5070	83	107	7	MOR	30	200	200	200	200	200	30	0	0	0 FD/R	3 M		2	2 p	
6	5070	84	107	8	PHOR	40	200	10	200	10	200	200	0	0	0 FD	5 p		6	2 p	
6	5070	85	107	20	PHOR	60	200	20	20	30	200	200	30	30	M	5 p		6	2 p	
60	5070	86	107	0		0	200	200	200	200	200	0	70	30	R	2 VR		0	3 r	
6	5070	87	107	8	MOR	60	200	200	200	200	200	200	0	0	0 FD	2 VR		0	2 d	
6	5070	88	107	8	MOR	20	200	200	200	200	200	20	10	0	0 M/R	3 R		0	3 vs	

MARRION LAKE
SITE 5073
FILE #3

DIST RICT	MAP NUMB	SITE NUMB	POLY NUMB	LREL TYPE	LREL INT	LYR1 TEXT	LYR2 TEXT	LYR2 THIK	LYR3 TEXT	LYR3 THIK	LYR4 TEXT	LYR4 THIK	LYR5 TEXT	LYR5 THIK	LYR6 TEXT	LYR6 THIK
3	5073	1	231 M		2 SL	20 LB		80		0		0			0	0
3	5073	2	231 R		3	0		0		0		0			0	0
3	5073	3	231 FO		5 L	30 LB		30 gLcB		40		0			0	0
3	5073	4	231 M		4 Lms	40 LvFS		60		0		0			0	0
3	5073	5	231 M/R		3 SL	30 LvFS		50		0		0			0	0
3	5073	6	237 M/R		4 SL	60 LvFS		30		0		0			0	0
3	5073	7	237 R		3	0		0		0		0			0	0
3	5073	8	237 M/R		4 SL	45		0		0		0			0	0
3	5073	9	237 M/R		3 SL	45 gCB		10 fB		10		0			0	0
3	5073	10	237 M/R		2 fB	70 gCB		30		0		0			0	0
3	5073	11	230 MR		3 LfB	100		0		0		0			0	0
3	5073	12	230 MR		3 gLB	40 gVCS		60		0		0			0	0
3	5073	13	230 MR		2 SL	100		0		0		0			0	0
3	5073	14	230 M		6 SL	30 gLcB		70		0		0			0	0
3	5073	15	230 M		2 LvFS	50 vGLvFS		50		0		0			0	0
3	5073	16	184 FK		2 gBL	40 gVCS		60		0		0			0	0
3	5073	17	184 FK		3 LfB	90 fB		10		0		0			0	0
3	5073	18	184 FK		1 gCB	100		0		0		0			0	0
3	5073	19	184 FK/R		2 gLB	5		0		0		0			0	0
3	5073	20	184 FK/R		2 Lms	25		0		0		0			0	0
3	5073	21	188 FO		2 gLB	100		0		0		0			0	0
3	5073	22	188 FO		4 SL	15 gLcB		30 gVCS		55		0			0	0
3	5073	23	188 FO		3 SL	40 gLcB		60		0		0			0	0
3	5073	24	188 FO		5 gBL	10 gLs		90		0		0			0	0
3	5073	25	188 FO		7 cB	100		0		0		0			0	0
3	5073	26	219 FO		7 MB	100		0		0		0			0	0
3	5073	27	219 FO/R		1 MB	30 fB		30		0		0			0	0
3	5073	28	219 FO		7 fB	10 LvFS		50 gLvfB		40		0			0	0
3	5073	29	219 FO		7 MB	10 gMB		10 LvFS		20 MB		0			0	0
3	5073	30	219 FO		7 LcB	30 fB		70		0		0			0	0
3	5073	31	220 FO		6 gVCS	20 gCB		80		0		0			0	0
3	5073	32	220 FO		7 SL	45 gVCS		55		0		0			0	0
3	5073	33	220 FO		7 cBL	10 SL		10 gVCS		80		0			0	0
3	5073	34	220 FO		7 LcB	10 Lms		5 gVCS		85		0			0	0
3	5073	35	220 FO		7 LB	10 LfB		20 gLFS		10 gCB		60			0	0
3	5073	36	283 M		5 LB	100		0		0		0			0	0
3	5073	37	283 M/R		2 SL	45		0		0		0			0	0
3	5073	38	283 M		1 vFBL	20 gLB		80		0		0			0	0
3	5073	39	283 M		4 Lms	60 fB		40		0		0			0	0
3	5073	40	283 M		3 Lms	60 gMB		10 MB		30		0			0	0
3	5073	41	286 M/R		2 LfB	60		0		0		0			0	0
3	5073	42	286 M/R		3 LfB	60		0		0		0			0	0
3	5073	43	286 M/R		4 LB	10		0		0		0			0	0
3	5073	44	286 M/R		6 LB	10		0		0		0			0	0
3	5073	45	286 M/R		1 Lms	60		0		0		0			0	0
3	5073	46	290 M/R		2 SIL	20 fBL		20 LfB		20		0			0	0
3	5073	47	290 R		1	0		0		0		0			0	0
3	5073	48	290 R		4	0		0		0		0			0	0
3	5073	49	290 L		0 MES	20 HUM		80		0		0			0	0

01/01/60

MARMION LAKE
SITE 5073
FILE #3

DIST RICT	MRP NUMB	SITE NUMB	POLY NUMB	DOM OM CLS	DSO	DCA	DDM	DPH	DWB	DGL	DBR	PERC EBR	PERC SSTN	LREL TYPE	LREL DR INT	MR	PRM SUB CLASS
3	5073	1	231	6 MOR	50	200	200	200	200	200	200	0	0	0 M	2 W	2	1 C
3	5073	2	231	4 MOR	0	200	200	200	200	200	0	80	40 R	0 R	3 VR	0	3 I
3	5073	3	231	10 PMOR	55	200	5	5	10	200	200	0	0	30 FD	5 P	6	2 P
3	5073	4	231	6 MOR	45	200	200	200	200	200	200	0	0	60 M	4 R	0	2 d
3	5073	5	231	8 MOR	50	200	200	200	200	200	80	0	0	40 M/R	3 W	2	2 sf
3	5073	6	237	5 MOR	60	200	200	200	200	200	90	70	0	0 M/R	4 R	0	2 sf
3	5073	7	237	0	0	200	200	200	200	200	0	40	20 R	0 R	3 VR	0	3 I
3	5073	8	237	6 MOR	45	200	200	200	200	200	45	70	50 M/R	0 R	4 W	2	2 sf
3	5073	9	237	5 MOR	55	200	200	200	200	200	65	0	10 M/R	0 R	3 W	2	2 sf
3	5073	10	237	7 MOR	55	200	200	200	200	200	200	0	0	0 M/R	2 R	1	2 d
3	5073	11	230	6 MOR	50	200	200	200	200	200	200	0	0	20 MR	3 R	1	2 d
3	5073	12	230	6 MOR	50	200	200	200	200	200	200	0	0	0 MR	3 VR	0	2 d
3	5073	13	230	7 MOR	80	200	200	200	200	200	200	0	0	30 MR	2 R	1	2 d
3	5073	14	230	5 PMOR	50	200	10	200	10	90	200	0	0	0 M	6 P	6	2 P
3	5073	15	230	5 MOR	50	200	200	200	200	200	200	0	0	30 FK	2 W	2	1 C
3	5073	16	184	4 MOR	45	200	200	200	200	200	200	0	0	0 FK	2 W	2	1 C
3	5073	17	184	8 MOR	80	200	200	200	200	200	200	0	0	0 FK	3 R	1	2 d
3	5073	18	184	4 MOR	40	200	200	200	200	200	200	0	0	0 FK	1 VR	0	2 d
3	5073	19	184	3 MOR	5	200	200	200	200	200	5	0	0 FK/R	0 R	2 VR	0	3 VS
3	5073	20	184	5 MOR	25	200	200	200	200	200	25	0	0 FK/R	0 R	2 VR	0	2 d
3	5073	21	188	10 MOR	50	200	200	200	200	200	200	0	0	0 FD	2 VR	0	2 d
3	5073	22	188	5 MOR	50	200	200	200	200	200	200	0	0	0 FD	4 VR	0	2 d
3	5073	23	188	4 MOR	45	200	200	200	200	200	200	0	0	0 FD	3 W	2	1 C
3	5073	24	188	4 MOR	30	200	40	200	200	200	200	0	0	0 FD	5 I	4	2 I
3	5073	25	188	6 MOR	60	200	200	200	200	200	200	0	0	0 FD	7 R	0	2 d
3	5073	26	219	7 MOR	60	200	200	200	200	200	200	0	0	0 FD	7 R	0	2 d
3	5073	27	219	4 MOR	60	200	200	200	200	200	60	0	0	0 FD/R	1 R	0	2 ss
3	5073	28	219	10 MOR	70	200	200	200	200	200	200	0	0	0 FD	7 W	2	1 C
3	5073	29	219	8 MOR	60	200	200	200	200	200	200	0	0	0 FD	7 R	0	2 d
3	5073	30	219	4 MOR	50	200	200	200	200	200	200	0	0	0 FD	6 P	6	2 P
3	5073	31	220	6 PMOR	40	200	30	30	40	40	200	0	0	0 FD	7 W	2	1 C
3	5073	32	220	4 MOR	60	200	200	200	200	200	200	0	0	0 FD	6 P	6	2 P
3	5073	33	220	5 MOR	40	200	200	200	200	200	200	0	0	0 FD	7 W	2	1 C
3	5073	34	220	5 MOR	60	200	200	200	200	200	200	0	0	0 FD	7 VR	0	2 d
3	5073	35	220	5 MOR	60	200	200	200	200	200	0	0	0	0 FD	7 VR	0	2 d
3	5073	36	283	10 PMOR	60	200	20	200	60	60	200	0	0	0 M	7 R	1	2 d
3	5073	37	283	10 MOR	45	200	200	200	200	200	45	0	0	0 M/R	5 I	6	2 P
3	5073	38	283	8 MOR	45	200	200	200	200	200	200	0	0	10 M	2 W	2	2 sf
3	5073	39	283	10 MOR	80	200	200	200	200	200	200	0	0	0 M	1 W	2	1 C
3	5073	40	283	8 MOR	80	200	95	200	200	200	200	0	0	0 M	4 W	2	1 C
3	5073	41	286	8 MOR	60	200	200	200	200	200	60	0	0	40 M/R	3 W	2	2 I
3	5073	42	286	10 MOR	60	200	200	200	200	200	60	40	0	0 M/R	2 R	1	2 ss
3	5073	43	286	4 MOR	10	200	200	200	200	200	10	20	70 M/R	0 R	3 R	1	3 VS
3	5073	44	286	10 PMOR	10	200	200	200	200	200	0	10	70	0 M/R	4 R	6	3 VS
3	5073	45	286	7 MOR	60	200	200	200	200	200	60	0	0	0 M/R	6 VP	0	2 ss
3	5073	46	290	5 MOR	0	200	200	200	200	200	0	10	40 M/R	0 R	1 W	2	2 sf
3	5073	47	290	0	0	200	200	200	200	200	0	90	0 R	0 R	2 R	0	3 I
3	5073	48	290	0	0	200	200	200	200	200	0	80	0 R	0 R	1 VR	0	3 I
3	5073	49	290	100 PMOR	200	200	200	200	200	200	200	0	0	0 L	4 VP	7	3 O

SEINE RIVER
SITE 5070
FILE #6

DIST RICT	MRP NUMB	SITE NUMB	POLY NUMB	LREL TYPE	LREL INT	LYR1 TEXT	LYR2 TEXT	LYR2 THIK	LYR3 TEXT	LYR3 THIK	LYR4 TEXT	LYR4 THIK	LYR5 TEXT	LYR5 THIK	LYR6 TEXT	LYR6 THIK
6	5070	50	141	LP	7 CL	100		0		0		0			0	0
6	5070	51	141	LP	7 SIC	100		0		0		0			0	0
6	5070	52	141	LD	7 L8	20 MB		80		0		0			0	0
6	5070	53	85	LP	1 SIL	20 SICL		80		0		0			0	0
6	5070	54	85	LP	1 c8	30 SIL		10 SICL		60		0			0	0
6	5070	55	85	FO	5 f8	100		0		0		0			0	0
6	5070	56	85	M/R	2 L8	60		0		0		0			0	0
6	5070	57	85	FO	3 c8	100		0		0		0			0	0
6	5070	58	85	FO	5 f8	100		0		0		0			0	0
6	5070	59	238	R	6	0		0		0		0			0	0
6	5070	60	238	R	1	0		0		0		0			0	0
6	5070	61	238	O/R	5 L8	20 gc8		20 f8		60		0			0	0
6	5070	62	238	O	6 LMB	100		0		0		0			0	0
6	5070	63	238	R	6	0		0		0		0			0	0
6	5070	64	238	R	3	0		0		0		0			0	0
6	5070	65	242	R	2	0		0		0		0			0	0
6	5070	66	242	M/R	4 L8	30		0		0		0			0	0
6	5070	67	242	M/R	3 Lf8	100		0		0		0			0	0
6	5070	68	242	M/R	2 Lf8	45		0		0		0			0	0
6	5070	69	242	M/R	1 Lf8	100		0		0		0			0	0
6	5070	70	242	M/R	2 Lf8	20		0		0		0			0	0
6	5070	71	102	M/R	4 L8	40		0		0		0			0	0
6	5070	72	102	M/R	2 L8	30		0		0		0			0	0
6	5070	73	102	FO	1 f8	50	g f8	50		0		0			0	0
6	5070	74	102	M/R	2 f8	100		0		0		0			0	0
6	5070	75	128	M/R	5 L8	10		0		0		0			0	0
6	5070	76	128	FO	5 L8	50	g L8	50		0		0			0	0
6	5070	77	128	FO	6 F18	50	MES	50		0		0			0	0
6	5070	78	128	FO/R	2 LMB	45		0		0		0			0	0
6	5070	79	128	FO	7 c8	40	gc8	10 MB		50		0			0	0
6	5070	80	128	FO	7 c8	40	gc8	50		0		0			0	0
6	5070	81	102	M/R	4 Lf8	45	MB	25		0		0			0	0
6	5070	82	102	R	5	0		0		0		0			0	0
6	5070	83	107	FO/R	3 c8L	30		0		0		0			0	0
6	5070	84	107	FO	5 Lf8	40	g L8	60		0		0			0	0
6	5070	85	107	M	5 c8L	100		0		0		0			0	0
6	5070	86	107	R	2	0		0		0		0			0	0
6	5070	87	107	FO	2 HLB	60	f8	40		0		0			0	0
6	5070	88	107	M/R	3 Lc8	20		0		0		0			0	0

MARMION LAKE
SITE 5073
FILE #3

DIST	MAP NUMB	SITE NUMB	POLY NUMB	DOM OM CLS	DBO	DCA	DDM	DPM	DWG	DGL	DBR	PERC EBR	PERC SSTN	LREL TYPE	LREL DR INT	MR	PRM SUB CLSS CLSS
3	5073	50	290	5 MOR	0	200	200	200	200	200	0	0	0	0 R	2 VR	0	3 r
3	5073	51	301	15 PMOR	40	200	200	200	200	5	60	30	0	0 M/R	5 P	6	2 ss
3	5073	52	301	8 MOR	60	200	200	200	200	200	200	30	0	0 M/R	4 W	2	1 c
3	5073	53	301	0	0	200	200	200	200	200	0	90	0	0 R	1 VR	0	3 r
3	5073	54	301	15 MOD	70	200	200	200	200	200	200	10	0	0 F/R	3 R	1	2 d
3	5073	55	301	15 MOD	70	200	200	200	200	200	200	0	10	0 F/R	3 R	0	2 d
3	5073	56	293	30 PMOR	0	200	200	200	200	200	0	0	0	0	1 VP	7	3 r
3	5073	57	293	5 MOR	30	200	200	200	200	200	30	60	0	0 M/R	1 R	1	3 vs
3	5073	58	293	100 PMOR	200	200	200	200	200	200	200	10	0	0	7 VP	7	3 o
3	5073	59	293	80 PMOR	80	200	200	200	200	200	80	0	0	0	7 VP	7	3 o
3	5073	60	293	10 MOD	45	200	200	200	200	10	45	0	0	0 M/R	4 P	6	2 ss
3	5073	61	107	10 MOR	80	200	200	200	200	200	90	0	20	0 M/R	1 R	1	2 d
3	5073	62	107	30 MOR	0	200	200	200	200	200	30	0	0	0 R	1 VR	0	3 r
3	5073	63	114	7 MOR	60	200	200	200	200	200	200	0	30	0 F/R	7 R	0	2 d
3	5073	64	114	4 MOR	60	200	200	200	200	200	200	0	20	0 F/R	7 R	0	2 d
3	5073	65	114	5 MOR	40	200	200	200	200	200	200	0	0	0 F/R	1 R	0	2 d
3	5073	66	114	10 MOR	60	200	200	200	200	200	200	0	0	0 F/R	1 R	0	2 d
3	5073	67	114	7 MOR	45	200	200	200	200	200	200	0	0	0 F/R	7 R	0	2 d
3	5073	68	107	8 MOR	80	200	200	200	200	200	80	30	0	0 M/R	3 R	1	2 ss
3	5073	69	107	0	0	200	200	200	200	200	0	90	0	0 R	1 VR	0	3 r
3	5073	70	86	10 MOR	40	200	200	200	200	200	200	0	0	0 F/R	7 R	0	2 d
3	5073	71	86	15 PMOR	40	200	200	200	200	15	200	0	0	0 F/R	6 VP	6	2 p
3	5073	72	86	10 MOR	80	200	200	200	200	200	200	0	0	0 F/R	7 R	1	2 d
3	5073	73	86	8 MOR	50	200	200	200	200	200	200	0	30	0 F/R	1 R	0	2 d
3	5073	74	86	5 MOR	80	200	200	200	200	200	200	0	0	50 F/R	1 VR	0	2 d
3	5073	75	112	15 PMOR	15	200	200	200	200	200	15	30	80	FS/R	7 VP	7	3 r
3	5073	76	112	15 PMOR	30	200	200	200	200	20	200	0	0	0 F/R	7 P	6	2 p
3	5073	77	112	10 PMOR	60	200	200	200	200	60	200	0	0	0 F/R	7 P	6	2 p
3	5073	78	112	10 MOR	0	200	200	200	200	200	0	80	40	0 R	1 VR	0	3 r
3	5073	79	112	100 PMOR	200	200	200	200	200	200	200	0	0	0	7 VP	7	3 o
3	5073	80	156	100 PMOR	200	200	200	200	200	200	200	0	0	0	7 VP	7	3 o
3	5073	81	156	100 PMOR	200	200	200	200	200	200	200	0	0	0	7 VP	7	3 o
3	5073	82	156	100 PMOR	200	200	200	200	200	200	200	0	0	0	7 VP	7	3 o
3	5073	83	156	100 PMOR	200	200	200	200	200	200	200	0	0	0	7 VP	7	3 o
3	5073	84	156	100 PMOR	200	200	200	200	200	200	200	0	0	0	7 VP	7	3 o
3	5073	85	107	0	0	200	200	200	200	200	0	70	70	C/R	3 VR	0	3 r
3	5073	86	107	4 MOD	40	200	200	200	200	200	40	0	20	0 M/R	4 W	5	2 sf

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MARMION LAKE
SITE 5073
FILE #3

DIST RICT	MAP NUMB	SITE NUMB	POLY NUMB	LREL TYPE	LREL INT	LYR1 THIK	LYR2 THIK	LYR2 TEXT	LYR2 TEXT	LYR3 THIK	LYR4 TEXT	LYR4 TEXT	LYR5 THIK	LYR5 TEXT	LYR6 THIK	LYR6 TEXT
3	5073	50	290 R		2	0	0			0			0		0	
3	5073	51	301 M/R		5	60	0			0			0		0	
3	5073	52	301 M/R		4	10	50	gcsL		40			0		0	
3	5073	53	301 R		1	0	0			0			0		0	
3	5073	54	301 F/R		3	10	40	LmS		50			0		0	
3	5073	55	301 FO		3	100	0			0			0		0	
3	5073	56	293 O		1	0	0			0			0		0	
3	5073	57	293 M/R		1	30	0			0			0		0	
3	5073	58	293 O		7	100	0			0			0		0	
3	5073	59	293 O		7	80	0			0			0		0	
3	5073	60	293 M/R		7	45	0			0			0		0	
3	5073	61	107 M/R		4	80	20			0			0		0	
3	5073	62	107 R		1	0	40	gcs		0			0		0	
3	5073	63	114 FO		7	20	25	gcs		40			0		0	
3	5073	64	114 FO		7	40	25	gcs		35			0		0	
3	5073	65	114 FO		1	40	10	gcs		50			0		0	
3	5073	66	114 FO		1	60	10	gcs		30			0		0	
3	5073	67	114 FO		1	40	20	gcs		40			0		0	
3	5073	68	107 M/R		3	70	10			0			0		0	
3	5073	69	107 R		1	0	0			0			0		0	
3	5073	70	86 FO		7	30	70			0			0		0	
3	5073	71	86 FO		6	100	0			0			0		0	
3	5073	72	86 FO		7	90	10			0			0		0	
3	5073	73	86 FO		1	30	10			50			0		0	
3	5073	74	86 FO		1	100	0			0			0		0	
3	5073	75	112 FS/R		7	0	0			0			0		0	
3	5073	76	112 FO		7	20	80			0			0		0	
3	5073	77	112 FO		7	60	40			0			0		0	
3	5073	78	112 R		1	0	0			0			0		0	
3	5073	79	112 O		7	100	0			0			0		0	
3	5073	80	156 O		7	100	0			0			0		0	
3	5073	81	156 O		7	100	0			0			0		0	
3	5073	82	156 O		7	100	0			0			0		0	
3	5073	83	156 O		7	100	0			0			0		0	
3	5073	84	156 O		7	100	0			0			0		0	
3	5073	85	107 C/R		3	0	0			0			0		0	
3	5073	86	107 M/R		4	20	20			0			0		0	

HEAVEN LAKE
SITE 5051
FILE #4

DIST	MAP	SITE	POLY	DOM ON	D60	DCA	DDM	DPH	DWG	DBL	DBR	PERC	PERC	LREL	LREL	DR	MR	PRM SUB	
RICT	NUMB	NUMB	NUMB	CLS								EBR	SSTN	TYPE	INT			CLS8	
4	5051	1	292	5 MOR	60	200	200	200	200	200	60	30	50	M/B	2 R	2 R	1	2 88	
4	5051	2	292	10 PHOR	45	200	200	200	200	30	200	0	60	M/R	3 P	3 P	6	2 P	
4	5051	3	292	4 MOR	60	200	200	200	200	200	200	0	50	M/R	3 R	3 R	1	2 d	
4	5051	4	292	3 MOR	60	200	200	200	85	85	200	0	0	FDP	7 I	7 I	4	2 1	
4	5051	5	278	3 MOR	60	200	200	200	200	200	200	0	60	M/R	2 R	2 R	1	2 d	
4	5051	6	278	85 PHOR	200	200	200	200	200	200	85	0	0	M/R	6 VP	6 VP	7	3 0	
4	5051	7	278	15 MOR	15	200	200	200	200	200	15	50	70	M/R	1 R	1 R	0	3 r	
4	5051	8	278	4 MOR	60	200	200	200	200	200	200	0	40	M/R	3 R	3 R	1	2 d	
4	5051	9	278	4 MOR	60	200	200	200	200	200	200	0	30	M/R	4 R	4 R	0	2 d	
04	5051	10	292	5 MOR	5	200	200	200	200	200	5	80	80	M/R	2 W	2 W	2	3 r	
4	5051	11	246	4 MOR	55	200	200	200	200	200	200	0	10	M	2 R	2 R	0	2 d	
4	5051	12	246	5 MOR	45	200	200	200	200	200	200	0	0	FDP	4 R	4 R	0	2 d	
4	5051	13	246	5 MOR	55	200	100	200	200	200	200	0	0	M/R	4 P	4 P	2	2 d	
4	5051	16	227	6 PHOR	50	200	200	200	200	200	200	0	0	FDP	4 P	4 P	6	2 P	
4	5051	13	246	5 MOR	45	200	200	200	200	200	200	0	0	FDP	4 P	4 P	2	2 d	
4	5051	14	246	5 MOR	200	200	200	200	200	200	200	20	60	O/R	5 MM	5 MM	3	2 1	
4	5051	17	227	75 PHOR	200	200	200	200	200	200	200	75	0	0	6 VP	6 VP	7	3 r	
4	5051	18	227	5 MOR	40	200	200	200	200	200	200	60	60	M/R	5 VP	5 VP	7	3 0	
4	5051	19	227	5 MOR	60	200	200	200	200	200	200	10	30	M/R	2 R	2 R	0	2 88	
4	5051	20	227	5 MOR	55	200	200	200	200	200	200	0	20	M/R	5 I	5 I	4	2 d	
4	5051	21	225	3 MOR	40	200	200	200	200	200	200	0	10	FDP	3 VR	3 VR	0	2 d	
4	5051	22	225	4 MOR	40	200	200	200	200	200	200	80	0	0	5 I	5 I	4	2 88	
4	5051	23	225	10 MOR	50	200	200	200	200	200	200	0	0	O/L	7 I	7 I	5	2 1	
4	5051	24	225	10 MOR	30	200	200	200	200	200	200	0	40	O/L	7 I	7 I	5	2 1	
4	5051	25	225	10 MOR	0	200	200	200	200	200	200	0	0	R	2 VR	2 VR	0	3 r	
4	5051	26	199	100 PHOR	200	200	200	200	200	200	200	0	0	O/M/R	6 VP	6 VP	7	3 0	
4	5051	27	199	8 MOR	40	200	200	200	200	200	200	0	10	M/R	5 I	5 I	4	2 1	
4	5051	28	199	8 MOR	0	200	200	200	200	200	200	90	90	R	2 VR	2 VR	0	3 r	
4	5051	29	199	8 MOR	20	200	200	200	200	200	200	0	10	M/R	3 R	3 R	0	3 r	
4	5051	30	199	20 MOR	50	200	200	200	200	200	200	10	20	FDP	4 I	4 I	5	2 1	
4	5051	31	97	4 MOR	45	200	200	200	200	200	200	0	0	FE	5 I	5 I	4	1 c	
4	5051	32	97	4 MOR	30	200	200	200	200	200	200	0	0	FE	3 I	3 I	2	1 c	
4	5051	33	97	3 MOR	45	200	200	200	200	200	200	0	40	FE	1 R	1 R	0	2 d	
4	5051	34	97	4 MOR	40	40	40	40	40	40	40	0	30	FE	2 MM	2 MM	4	2 1	
4	5051	35	97	4 MOR	30	200	200	200	200	200	200	0	50	M/R	2 VR	2 VR	0	2 d	
4	5051	36	90	4 MOR	30	200	200	200	200	200	200	0	60	M/R	4 I	4 I	5	2 1	
4	5051	37	90	4 MOR	45	200	200	200	200	200	200	0	50	M/R	7 R	7 R	1	2 d	
4	5051	38	90	10 MOR	50	200	200	200	200	200	200	0	50	M	7 I	7 I	4	1 c	
4	5051	39	90	3 MOR	55	200	200	200	200	200	200	0	20	M	7 W	7 W	3	1 c	
4	5051	40	90	15 MOR	0	200	200	200	200	200	200	80	80	M/R	3 VR	3 VR	0	2 P	
4	5051	41	96	10 MOR	25	200	200	200	200	200	200	0	60	M	7 I	7 I	5	2 P	
4	5051	42	96	8 MOR	60	200	200	200	200	200	200	0	10	FDP	7 W	7 W	2	1 c	
4	5051	43	96	10 PHOR	0	200	200	200	200	200	200	0	30	R	7 VP	7 VP	7	2 88	
4	5051	44	96	2 MOR	40	200	200	200	200	200	200	40	20	M/R	7 W	7 W	2	3 r	
4	5051	45	96	10 MOR	55	200	200	200	200	200	200	85	10	40	M/R	4 I	4 I	5	1 c
4	5051	46	61	8 MOR	40	200	200	200	200	200	200	60	10	20	M/R	2 I	2 I	4	2 88
4	5051	47	61	10 PHOR	30	200	200	200	200	200	200	0	0	LD	7 P	7 P	6	2 P	
4	5051	48	61	4 PHOR	20	200	200	200	200	200	200	0	0	LD	7 P	7 P	6	2 P	
4	5051	49	61	5 MOR	45	200	200	200	200	200	200	0	0	LD	7 I	7 I	5	1 c	

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HEAVEN LAKE
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DIST	MAP	SITE	POLY	LNEL	LNEL	LYR1	LYR2	LYR3	LYR4	LYR5	LYR6	LYR6
RICT	NUMB	NUMB	NUMB	TYPE	INT	TEXT	THIK	TEXT	THIK	TEXT	THIK	TEXT
4	5051	1	292	M/B	2	818	60					
4	5051	2	292	M/R	3	BL	100	0	0	0	0	0
4	5051	3	292	M/R	3	818	30	70	0	0	0	0
4	5051	4	292	FOP	7	MB	35	35	30	0	0	0
4	5051	5	278	M/R	2	LB	100	0	0	0	0	0
4	5051	6	278	M/R	6	MEB	185	0	0	0	0	0
4	5051	7	278	M/R	1	LS	15	0	0	0	0	0
4	5051	8	278	M/R	3	FS	100	0	0	0	0	0
4	5051	9	278	M/R	4	LS	100	0	0	0	0	0
04	5051	10	292	M/R	2	BL	5	0	0	0	0	0
4	5051	11	246	M	2	MB	100	0	0	0	0	0
4	5051	12	246	FD	4	LB	40	60	0	0	0	0
4	5051	13	246	FD	4	LB	100	0	0	0	0	0
4	5051	14	246	FD/M	4	LB	100	0	0	0	0	0
4	5051	15	246	FD/L	2	MB	100	0	0	0	0	0
4	5051	16	246	FD/L	5	FS	60	40	0	0	0	0
4	5051	17	227	D/R	6		0	0	0	0	0	0
4	5051	18	227	D/R	5	MEB	75	0	0	0	0	0
4	5051	19	227	M/R	2	LF8	60	0	0	0	0	0
4	5051	20	227	M/R	5	BL	60	40	0	0	0	0
4	5051	21	223	M/R	3	BL8	100	0	0	0	0	0
4	5051	22	223	FO/R	5	LF8	80	0	0	0	0	0
4	5051	23	223	FO/L	7	81FS	100	0	0	0	0	0
4	5051	24	223	FO/L	7	81FS	100	0	0	0	0	0
4	5051	25	223	R	2		0	0	0	0	0	0
4	5051	26	199	D/M/R	6	MEB	100	0	0	0	0	0
4	5051	27	199	M/R	5	LF8	100	0	0	0	0	0
4	5051	28	199	R	2	LF8	0	0	0	0	0	0
4	5051	29	199	M/R	3	LVFS	20	0	0	0	0	0
4	5051	30	199	FO/R	4	SIL	70	30	0	0	0	0
4	5051	31	97	FE	5	VFSL	100	0	0	0	0	0
4	5051	32	97	FE	3	LVFS	100	0	0	0	0	0
4	5051	33	97	FE	1	MB	100	0	0	0	0	0
4	5051	34	97	FE	2	LF8	100	0	0	0	0	0
4	5051	35	97	FE	2	BL8	100	0	0	0	0	0
4	5051	36	90	M/R	4	SIL	15	85	0	0	0	0
4	5051	37	90	M/R	7	LS	100	0	0	0	0	0
4	5051	38	90	M	7	BL	100	0	0	0	0	0
4	5051	39	90	M	7	BL	30	25	45	0	0	0
4	5051	40	90	M/R	3		0	0	0	0	0	0
4	5051	41	96	M	7	BL	100	0	0	0	0	0
4	5051	42	96	FD	7	BL	50	25	75	0	0	0
4	5051	43	96	R	7		0	0	0	0	0	0
4	5051	44	96	M/R	7	BL	40	0	0	0	0	0
4	5051	45	96	M/R	4	BL	55	15	30	0	0	0
4	5051	46	61	M/R	2	BL	60	0	0	0	0	0
4	5051	47	61	LD	7	81FS	100	0	0	0	0	0
4	5051	48	61	LD/M	7	BL	20	80	0	0	0	0
4	5051	49	61	LD/M	7	VF8	70	30	0	0	0	0

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DIST	MAP	SITE	POLY	DOM	CLS	DSO	DCR	DDW	DPM	DWB	DGL	DBR	PERC	PERC	LREL	LREL	DR	MR	PRM	SUB
RICT	NUMB	NUMB	NUMB										EBR	BSTN	TYPE	INT			CLS	CLS
4	5051	50	61	4	MOR	40	200	40	200	200	200	200	0	10	M	1	1	5	1	C
4	5051	51	70	4	MOR	40	200	200	200	200	200	200	0	0	E/LD	2	R	1	2	D
4	5051	52	70	15	PMOR	30	200	5	5	5	30	200	0	0	LD	6	P	5	2	P
4	5051	53	70	4	MOR	40	200	30	30	80	200	200	0	0	LD	7	I	5	2	1
4	5051	54	70	4	MOR	45	200	40	200	200	200	200	0	0	LD	5	I	4	2	1
4	5051	55	70	4	MOR	20	200	200	200	200	200	200	0	0	LD	7	R	1	2	D
4	5051	56	124	5	MOR	40	200	70	70	200	200	200	0	20	M/R	1	I	3	2	1
4	5051	57	124	8	MOR	40	200	40	200	200	200	200	0	40	M/R	3	R	1	2	ss
4	5051	58	124	4	MOR	50	200	200	200	200	200	200	0	0	M/R	4	I	4	2	1
4	5051	59	124	2	MOR	30	200	200	200	200	200	200	0	10	M/R	2	R	1	2	D
4	5051	60	124	3	MOR	20	200	200	200	200	200	200	0	70	M/R	3	R	1	3	r
4	5051	61	105	100	PMOR	200	200	200	200	200	200	200	0	0	0	7	VP	7	3	0
4	5051	62	105	100	PMOR	200	200	200	200	200	200	200	0	0	0	7	VP	7	3	0
4	5051	63	105	10	PMOR	10	200	200	200	200	200	200	10	0	0	4	VP	7	3	0
4	5051	64	105	100	PMOR	200	200	200	200	200	200	200	0	0	0	7	VP	7	3	0
4	5051	65	105	100	PMOR	200	200	200	200	200	200	200	0	0	FD	4	R	0	2	D
4	5051	66	42	4	MOR	60	200	200	200	200	200	200	0	90	FE	3	R	0	2	D
4	5051	67	42	4	MOR	30	200	200	200	200	200	200	0	20	M	2	W	2	1	C
4	5051	68	42	3	MOR	40	0	0	0	0	0	0	0	0	FD	4	M	2	1	C
4	5051	69	42	4	MOR	30	200	200	200	200	200	200	0	0	FD/R	4	R	1	2	ss
4	5051	70	42	5	MOR	40	200	200	200	200	200	200	0	90	R	2	VR	0	3	r
4	5051	71	346	10	MOR	200	200	200	200	200	200	200	0	20	M	3	W	2	1	C
4	5051	72	346	8	MOR	40	200	200	200	200	200	200	0	50	M/R	2	W	2	2	sf
4	5051	73	346	8	MOR	40	200	200	200	200	200	200	0	0	FD	2	R	1	2	D
4	5051	74	346	2	MOR	60	200	200	200	200	200	200	0	0	FD	5	MW	3	1	C
4	5051	75	346	8	MOR	70	200	70	200	200	200	200	0	0	M/R	3	W	2	2	sf
4	5051	76	330	8	MOR	45	200	200	200	200	200	200	10	0	M	2	W	2	1	C
4	5051	77	330	5	MOR	80	200	200	200	200	200	200	0	0	M/R	3	W	2	2	sf
4	5051	78	330	7	MOR	45	200	200	200	200	200	200	10	20	M/R	2	W	2	2	sf
4	5051	79	330	5	MOR	75	200	200	200	200	200	200	0	20	M/R	6	VP	7	3	r
4	5051	80	330	30	PMOR	30	200	200	200	200	200	200	0	0	M/R	6	VP	7	3	r
4	5051	81	330	60	MES	200	200	200	200	200	200	200	0	0	M/R	6	VP	7	3	0

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DIST	MAP	SITE	POLY	LREL	LREL	LVR1	LVR2	LVR2	LVR3	LVR3	LVR4	LVR4	LVR5	LVR5	LVR6
RICT	NUMB	NUMB	NUMB	TYPE	INT	THIK	TEXT	TEXT	THIK	TEXT	THIK	TEXT	THIK	TEXT	THIK
4	5051	50	61 M		1 L	100			0		0		0		0
4	5051	51	70 E/LD		2 FB	100			0		0		0		0
4	5051	52	70 LD		6 FB	100			0		0		0		0
4	5051	53	70 LD		7 FB	100			0		0		0		0
4	5051	54	70 LD		5 FB	100			0		0		0		0
4	5051	55	70 LD		7 FB	100			0		0		0		0
4	5051	56	124 M/R		1 LFB	70 CS			30		0		0		0
4	5051	57	124 M/R		3 FB	20 MS			50		0		0		0
4	5051	58	124 M/R		4 LFB	60 BCS			40		0		0		0
4	5051	59	124 M/R		2 LFB	30 CS			70		0		0		0
4	5051	60	124 M/R		3 LFB	30 CS			40		0		0		0
4	5051	61	105 D		7 MES	100			0		0		0		0
4	5051	62	105 D		7 MES	100			0		0		0		0
4	5051	63	105 D/M/R		4 L	30			0		0		0		0
4	5051	64	105 D		7 MES	100			0		0		0		0
4	5051	65	105 D		7 MES	80 MUM			20		0		0		0
4	5051	66	42 FD		4 LMS	100			0		0		0		0
4	5051	67	42 FE		3 BCS	100			0		0		0		0
4	5051	68	42 M		2 L	100			0		0		0		0
4	5051	69	42 FD		4 VFB	30 VBMS			70		0		0		0
4	5051	70	42 FD/R		4 LFB	40			0		0		0		0
4	5051	71	346 R		2	0			0		0		0		0
4	5051	72	346 M		3 BL	100			0		0		0		0
4	5051	73	346 M/R		2 FBL	70			0		0		0		0
4	5051	74	346 FD		2 LFB	100			0		0		0		0
4	5051	75	346 FD		5 LvFB	100			0		0		0		0
4	5051	76	330 M/R		3 LvFB	45			0		0		0		0
4	5051	77	330 M		2 LvFB	70 LMS			30		0		0		0
4	5051	78	330 M/R		3 LvFB	45			0		0		0		0
4	5051	79	330 M/R		2 LvFB	75 GMS			10		0		0		0
4	5051	80	330 M/R		6 MES	30			0		0		0		0
4	5051	81	330 M/R		6 VBMS	40			0		0		0		0

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ROSLYN LAKE
SITE 5079
FILE #5

DIST RICT	MAP NUMB	SITE NUMB	POLY NUMB	DOM	CH	CLB	D60	DCA	DDM	DDM	DW3	DGL	DBR	PERC EBR	PERC BSSN	LREL TYPE	LREL INT	DR	MR	PRM SUB CLSS CLSS		
5	5079	1	320	4	MOR	4	40	200	200	200	200	200	40	50	70	M/R	2	VR	0	3	r	
5	5079	2	320	3	MOR	3	10	200	200	200	200	200	10	80	90	M/R	3	VR	0	3	r	
5	5079	3	320	0		0	0	200	200	200	200	200	0	100	0	R	1	VR	0	3	r	
5	5079	4	320	4	MOR	4	50	200	200	200	200	200	50	30	30	M/R	4	R	0	2	ss	
5	5079	5	320	0		0	0	200	200	200	200	200	0	100	0	R	2	VR	0	3	r	
5	5079	6	311	4	MOR	4	55	200	200	200	200	200	200	0	0	FD	2	VR	0	2	d	
5	5079	7	311	4	MOR	4	50	200	200	200	200	200	200	0	0	FD	3	VR	0	2	d	
5	5079	8	311	5	MOR	5	45	200	200	200	200	200	200	0	0	FD	4	R	1	2	d	
5	5079	9	311	4	MOR	4	40	200	200	200	200	200	200	0	0	FD	3	VR	0	3	r	
5	5079	10	311	2	MOR	2	30	200	200	200	200	200	200	0	0	FD	4	VR	0	3	r	
5	5079	11	324	0		0	200	200	200	200	200	200	0	90	0	R	7	VR	0	3	r	
5	5079	12	324	8	MOR	8	40	200	50	50	200	200	70	40	20	M/R	5	I	3	2	ss	
5	5079	13	324	10	MOR	10	40	200	30	30	200	200	60	0	80	M/R	5	I	4	3	r	
5	5079	14	324	4	MOR	4	10	200	200	200	200	200	10	90	30	M/R	7	VR	0	3	vs	
5	5079	15	324	3	MOR	3	30	200	200	200	200	200	30	40	20	M/R	3	VR	2	3	vs	
5	5079	16	323	5	MOR	5	40	200	200	200	200	200	200	0	0	FD	5	VR	0	3	r	
5	5079	17	323	4	MOR	4	40	200	200	200	200	200	100	0	30	FD	2	R	0	2	d	
5	5079	18	323	4	MOR	4	40	200	200	200	200	200	200	0	60	60	O/R	6	VP	7	3	o
5	5079	19	323	45	PMOR	45	45	200	200	200	200	200	200	45	20	60	O/R	5	P	6	2	p
5	5079	20	323	15	PMOR	15	50	200	200	200	200	200	200	0	0	FD	5	P	6	2	p	
5	5079	21	320	4	MOR	4	8	200	200	200	200	200	200	8	90	0	M/R	3	VR	0	2	ss
5	5079	22	320	5	MOR	5	50	200	200	200	200	200	200	60	0	30	M/R	4	R	0	2	ss
5	5079	23	320	15	MOR	15	50	200	200	200	200	200	200	80	20	60	M/R	4	VR	0	2	ss
5	5079	24	320	10	MOR	10	60	200	200	200	200	200	200	0	0	90	M/R	3	VR	0	3	r
5	5079	25	320	10	MOR	10	20	200	200	200	200	200	200	20	0	0	M/R	2	VR	0	3	r
5	5079	26	273	4	MOR	4	45	200	200	200	200	200	200	0	0	FD	7	R	1	2	d	
5	5079	27	273	8	MOR	8	60	200	200	200	200	200	200	0	0	FD	7	VR	0	2	d	
5	5079	28	273	5	MOR	5	80	200	200	200	200	200	200	0	0	FD	7	R	0	2	d	
5	5079	29	273	5	MOR	5	60	200	200	200	200	200	200	0	0	FD	7	R	0	2	d	
5	5079	30	273	4	MOR	4	40	200	200	200	200	200	200	0	0	FD	7	R	0	2	d	
5	5079	31	168	4	MOR	4	45	200	200	200	200	200	200	45	0	40	FD/R	3	R	1	2	ss
5	5079	32	168	4	MOR	4	40	200	200	200	200	200	200	40	0	70	M/R	2	R	1	3	r
5	5079	33	168	8	MOR	8	45	200	200	200	200	200	200	45	0	30	M/R	2	R	1	2	ss
5	5079	34	168	30	PMOR	30	0	200	200	200	200	200	200	0	20	0	M/R	6	VP	7	3	r
5	5079	35	168	8	MOR	8	30	200	200	200	200	200	30	60	20	M/R	4	R	1	3	vs	
5	5079	36	162	30	PMOR	30	70	200	200	200	200	200	30	70	0	0	O/M	7	VP	7	3	o
5	5079	37	162	45	PMOR	45	200	200	200	200	200	200	45	200	0	0	0	7	VP	7	3	o
5	5079	38	162	30	PMOR	30	40	200	200	200	200	200	10	200	0	0	O/M	7	VP	7	2	p
5	5079	39	162	60	PMOR	60	60	200	200	200	200	200	60	200	0	0	O/M	7	VP	7	3	o
5	5079	40	162	50	PMOR	50	50	200	200	200	200	200	50	200	0	0	O/M	7	VP	7	3	o
5	5079	41	162	70	PMOR	70	70	200	200	200	200	200	70	200	0	0	O/M	7	VP	7	3	o
5	5079	42	177	10	PMOR	10	60	200	15	15	30	200	200	0	0	LD	7	P	6	2	p	
5	5079	43	177	15	MOR	15	40	200	20	20	45	200	200	0	0	LD	7	P	5	2	p	
5	5079	44	177	8	PMOR	8	40	200	15	15	40	200	200	0	0	LD	7	P	6	2	p	
5	5079	45	177	5	PMOR	5	40	200	15	15	20	200	200	0	0	LD	7	P	6	2	p	
5	5079	46	190	5	PMOR	5	50	200	15	15	30	200	200	0	0	LD	7	P	6	2	p	
5	5079	47	190	4	MOR	4	80	200	200	200	200	200	200	0	0	FD	2	R	1	2	d	
5	5079	48	110	4	MOR	4	45	200	200	200	200	200	200	0	0	FE	4	R	1	2	d	
5	5079	48	110	4	MOR	4	45	200	200	200	200	200	200	0	0	FE	3	VR	0	2	d	

ROSLYN LAKE
SITE 5079
FILE #5

DIST	MRP	SITE	POLY	LREL	LREL	LVR1	LVR2	LVR3	LVR4	LVR5	LVR6
RICT	NUMB	NUMB	NUMB	TYPE	INT	THIK	THIK	THIK	THIK	THIK	THIK
5	5079	1	320	M/R	2	8LcB	40	0	0	0	0
5	5079	2	320	M/R	3	Lvcs	10	0	0	0	0
5	5079	3	320	R	1		0	0	0	0	0
5	5079	4	320	M/R	4	LcB	50	0	0	0	0
5	5079	5	320	R	2		0	0	0	0	0
5	5079	6	311	FO	2	MB	50	50	0	0	0
5	5079	7	311	FO	3	gLMB	100	0	0	0	0
5	5079	8	311	FO	4	LFB	20	80	0	0	0
5	5079	9	311	FO	3	vgvcs	100	0	0	0	0
5	5079	10	311	FO	4	gLcs	100	0	0	0	0
5	5079	11	324	R	7		0	0	0	0	0
5	5079	12	324	M/R	5	LcB	70	0	0	0	0
5	5079	13	324	M/R	5	LcB	60	0	0	0	0
5	5079	14	324	M/R	7	LMB	10	0	0	0	0
5	5079	15	324	M/R	3	BL	30	0	0	0	0
5	5079	16	323	FO	5	gLMB	100	0	0	0	0
5	5079	17	323	FO	2	LMB	100	0	0	0	0
5	5079	18	323	R	1		0	0	0	0	0
5	5079	19	323	O/R	6	MB	45	0	0	0	0
5	5079	20	323	FO	5	Lvfb	100	0	0	0	0
5	5079	21	320	M/R	3	CSL	8	0	0	0	0
5	5079	22	320	M/R	4	LMB	60	0	0	0	0
5	5079	23	320	M/R	4	LcB	80	0	0	0	0
5	5079	24	320	M/R	3	GLcB	100	0	0	0	0
5	5079	25	320	M/R	2	LcB	20	0	0	0	0
5	5079	26	273	FO	7	LFB	45	55	0	0	0
5	5079	27	273	FO	7	GLvcs	100	0	0	0	0
5	5079	28	273	FO	7	LMB	40	40	20	0	0
5	5079	29	273	FO	7	LMB	60	40	0	0	0
5	5079	30	273	FO	7	LMB	40	60	0	0	0
5	5079	31	168	FO/R	3	LFB	45	0	0	0	0
5	5079	32	168	M/R	2	LFB	40	0	0	0	0
5	5079	33	168	M/R	2	LFB	45	0	0	0	0
5	5079	34	168	M/R	6		0	0	0	0	0
5	5079	35	168	M/R	4	LFB	30	0	0	0	0
5	5079	36	162	O/M	7	LFB	30	0	0	0	0
5	5079	37	162	O	7	LMB	45	65	0	0	0
5	5079	38	162	O/M	7	LMB	70	30	0	0	0
5	5079	39	162	O/M	7	LMB	60	40	0	0	0
5	5079	40	162	O/M	7	LMB	50	50	0	0	0
5	5079	41	162	O/M	7	LFB	30	0	0	0	0
5	5079	42	177	LD	7	Lvfb	100	0	0	0	0
5	5079	43	177	LD	7	Lvfb	100	0	0	0	0
5	5079	44	177	LD	7	LFB	100	0	0	0	0
5	5079	45	177	LD	7	MB	100	0	0	0	0
5	5079	46	190	FO	2	LFB	100	0	0	0	0
5	5079	47	190	FO	4	LFB	45	15	40	0	0
5	5079	48	110	FE	3	gcB	100	0	0	0	0

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DIST	MAP NUMB	SITE NUMB	POLY NUMB	DOM OM	CL5	DSD	DCA	DDM	DPM	DMB	DGL	DBR	PERC EBR	PERC SSTN	LREL TYPE	LREL INT	MR	PRM CLSS	SUB CLSS
5	5079	49	110	4	MOR	80	200	200	200	200	200	200	0	0	FE	2 VR	0	2 d	
5	5079	50	110	10	MOR	60	200	200	200	200	200	200	0	0	FK	5 I	4	2 d	
5	5079	51	111	5	MOR	45	200	200	200	200	200	200	0	0	FO	7 VR	0	2 d	
5	5079	52	111	4	MOR	45	200	200	200	200	200	200	0	0	FO	2 R	1	2 d	
5	5079	53	111	4	MOR	45	200	200	200	200	200	200	0	0	FO	7 VR	0	2 d	
5	5079	54	111	4	MOR	50	200	200	200	200	200	200	0	0	FO	7 VR	0	2 d	
5	5079	55	111	2	MOR	75	200	200	200	200	200	200	0	0	FO	7 VR	0	2 d	
5	5079	56	119	100	PMOR	200	200	200	200	200	200	200	0	0	0	7 VP	7	3 o	
5	5079	57	119	30	PMOR	30	200	200	200	200	200	30	0	0	0	6 VP	7	3 r	
5	5079	58	119	5	MOR	60	200	200	200	200	200	200	0	0	FO/R	2 R	1	2 d	
5	5079	59	119	3	MOR	45	200	200	200	200	200	200	0	10	M/R	2 VR	0	3 r	
5	5079	61	214	10	PMOR	10	200	200	200	200	0	0	0	0	M/R	3 VP	7	3 vs	
5	5079	62	214	10	MOD	55	200	200	200	200	200	75	10	30	L/R	4 W	2	1 f	
5	5079	63	214	15	MOR	0	200	200	200	200	200	15	20	0	M/R	6 VR	0	3 r	
5	5079	64	214	10	MOR	40	200	200	200	200	40	45	0	60	M/R	3 I	5	2 ss	
5	5079	65	214	2	MOD	4	200	200	200	200	200	100	0	40	M/R	1 VR	0	3 vs	
5	5079	66	57	8	MOR	50	200	200	200	200	200	200	0	0	FO	7 VR	0	2 d	
5	5079	67	57	5	MOR	60	200	200	200	200	200	200	0	0	FO	7 MW	2	2 d	
5	5079	68	57	5	MOR	40	200	200	200	200	200	200	0	0	FO	7 MW	4	2 p	
5	5079	70	57	8	MOR	50	200	200	200	200	200	200	0	0	FO/M	3 MW	4	2 d	
5	5079	69	57	15	MOR	45	200	200	200	200	200	45	0	0	M/R	5 I	4	2 sf	
5	5079	72	59	7	MOR	50	200	200	200	200	200	200	0	0	FK	1 MW	2	2 d	
5	5079	71	59	5	MOR	55	200	200	200	200	200	200	0	0	FO	5 W	2	1 c	
5	5079	73	59	5	MOR	50	200	200	200	200	200	200	0	0	FK	3 VR	0	2 d	
5	5079	74	59	10	MOR	80	200	200	200	200	200	200	0	0	FK	3 R	0	2 d	
5	5079	75	59	8	MOR	50	200	200	200	200	200	200	0	0	FO	5 MW	2	2 d	
5	5079	76	74	5	MOR	50	200	200	200	200	200	60	0	0	M/R	2 R	1	2 ss	
5	5079	77	74	7	MOR	50	200	200	200	200	200	60	0	0	M/R	1 I	4	2 ss	
5	5079	78	74	5	MOR	40	200	200	200	200	200	60	0	0	M/R	3 W	3	2 sf	
5	5079	79	74	5	MOR	45	200	200	200	200	200	200	0	20	M/R	5 I	5	2 p	
5	5079	80	74	10	MOR	60	200	200	200	200	200	200	0	0	FK	2 VR	0	2 d	

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DIST	MSD	SITE	POLY	LREL	LREL	LVR1	LVR2	LVR2	LVR3	LVR3	LVR4	LVR4	LVR5	LVR5	LVR6	LVR6
RICT	NUMB	NUMB	NUMB	TYPE	INT	TEXT	THIK	TEXT	THIK	TEXT	THIK	TEXT	THIK	TEXT	THIK	TEXT
5	5079	49	110	FE	2	gc8	100		0		0		0		0	
5	5079	50	110	FK	5	vgvc8	100		0		0		0		0	
5	5079	51	111	FO	7	mb	50	gc8	50		0		0		0	
5	5079	52	111	FO	7	gfb	100		0		0		0		0	
5	5079	53	111	FO	2	gvcb8	20	gmb	25	fb	0		55		0	
5	5079	54	111	FO	7	vgvc8	100		0		0		0		0	
5	5079	55	111	FO	7	vgvc8	100		0		0		0		0	
5	5079	56	119	O	7	fib	45	MEB	55		0		0		0	
5	5079	57	119	O	6	MEB	30		0		0		0		0	
5	5079	58	119	FO/R	2	fb	80	gfb	20		0		0		0	
5	5079	60	119	M/R	2		0		0		0		0		0	
5	5079	59	119	LD	4	gfb	100		0		0		0		0	
5	5079	61	214	M/R	3	8IL	10		0		0		0		0	
5	5079	62	214	L/R	4	CL	75		0		0		0		0	
5	5079	63	214	M/R	6		0		0		0		0		0	
5	5079	64	214	M/R	3	Lfb	45		0		0		0		0	
5	5079	65	214	M/R	1	L	4		0		0		0		0	
5	5079	66	57	FO	7	gmb	100		0		0		0		0	
5	5079	67	57	FO	7	gmb	100		0		0		0		0	
5	5079	68	57	FO	7	gmb	100		0		0		0		0	
5	5079	70	57	FO/M	3	Lfb	50	LB	50		0		0		0	
5	5079	69	57	M/R	5	BL	45		0		0		0		0	
5	5079	72	59	FK	1	cb	20	fb	80		0		0		0	
5	5079	71	59	FO	5	BL	100		0		0		0		0	
5	5079	73	59	FK	3	gmb	20	gvcb8	30	fb	0		0		0	
5	5079	74	59	FK	3	cb	20	vc8	60	fb	0		0		0	
5	5079	75	59	FO	5	mbl	50	vfb	40	gfb	0		0		0	
5	5079	76	74	M/R	2	Lfb	60		0		0		0		0	
5	5079	77	74	M/R	1	Lfb	60		0		0		0		0	
5	5079	78	74	M/R	3	vfb	20	1	40		0		0		0	
5	5079	79	74	M/R	5	BL	100		0		0		0		0	
5	5079	80	74	FK	2	gvcb8	100		0		0		0		0	

APPENDIX "I"

APPENDIX "I"

TABLE 1.
STRATA ME, MH

Map Name	Polygon No.	No. Samples	Agree	Disagree
Pakwash L.	276	5	3	2
	670	5	5	-
	855	7	5	2
Wabigoon L.	81	6	6	-
	162	6	5	1
	287	6	6	-
Marmion L.	230	5	4	1
	283	5	4	1
Heaven L.	199	5	2	3
	90	5	2	3
Total Number	10	55	42	23

TABLE 2.
STRATA MG

Map Name	Polygon No.	No. Samples	Agree	Disagree
Pakwash L.	795	5	4	1
	800/801	5	-	5
Wabigoon L.	110	6	2	4
	313	6	5	1
Seine R.	102	6	5	1
	128	6	4	2
Heaven L.	278	5	3	2
	246	5	5	-
Roslyn L.	346	5	2	3
	324	5	1	4
Total Number	11	54	31	23

TABLE 3.
STRATA GE, GK

Map Name	Polygon No.	No. Samples	Agree	Disagree
Pakwash L.	154	5	4	1
	261	2	-	2
Wabigoon L.	139	8	5	3
	93	5	4	1
Seine R.	155	5	5	-
	184	5	2	3
	188	5	4	1
Heaven L.	225	5	4	1
	97	5	3	2
Roslyn L.	190	2	2	-
	110	3	3	-
	111	5	5	-
	74	5	5	-
Total Number	13	60	46	14

TABLE 4.
STRATA GO, GD, LB, LD

Map Name	Polygon No.	No. Samples	Agree	Disagree
Pakwash L.	445	5	4	1
	294	6	3	3
Wabigoon L.	80	6	6	-
	101	6	4	2
Seine R.	77	5	5	-
	238	6	2	4
	107	6	2	4
Marmion L	231	5	3	2
	86	5	5	-
	114	5	5	-
Heaven L.	124	5	4	1
	42	5	3	2
Roslyn L.	311	5	3	2
	323	5	2	3
	273	5	5	-
Total Number	15	80	58	22

TABLE 5.
STRATA LP

Map Name	Polygon No.	No. Samples	Agree	Disagree
Wabigoon L.	19	6	3	3
	98	6	4	2
	141	10	5	5
Seine R.	153	4	1	3
	141	5	4	1
Marmion L.	219	5	4	1
	112	5	2	3
Heaven L.	61	5	3	2
	70	5	-	5
Total Number	9	51	26	25

TABLE 6.
STRATA OT

Map Name	Polygon No.	No. Samples	Agree	Disagree
Pakwash L.	78	3	3	-
Wabigoon L.	37	5	5	-
	188	6	2	4
Seine R.	178	5	4	1
	156	5	2	3
Marmion L.	293	5	4	1
	156	5	5	-
Heaven L.	105	5	5	-
Roslyn L.	162	6	5	1
	177	5	-	5
Total Number	10	50	35	15

TABLE 7.
STRATA RL, RP

Map Name	Polygon No.	No. Samples	Agree	Disagree
Pakwash L.	301	6	3	3
	324	9	-	9
	827	6	-	6
	637	11	8	3
Wabigoon L.	253	6	2	4
Marmion L.	237	5	1	4
	286	5	2	3
	290	5	4	1
Total Number	8	53	20	33

TABLE 8.
STRATA RN, RR

Map Name	Polygon No.	No. Samples	Agree	Disagree
Pakwash L.	874	7	3	4
Wabigoon L.	312	6	6	-
	170	7	4	3
	157	6	6	-
	85	6	4	2
Marmion L.	242	6	4	2
	107	6	3	3
	292	5	1	4
	227	5	2	3
Roslyn L.	320	10	7	3
	168	5	3	2
	214	5	1	4
Total Number	12	74	44	30

TABLE 9.
STRATA X/R

Map Name	Polygon No.	No. Samples	Agree	Disagree
Pakwash L.	861	3	1	2
	358	5	-	5
Wabigoon L.	126	6	4	2
	95	5	5	-
Seine R.	220	5	4	1
Marmion L.	301	5	3	2
	330	6	33	
Heaven L.	96	5	2	3
	119	5	2	3
Roslyn L.	57	5	5	-
	59	5	4	1
Total Number	11	55	33	22

APPENDIX "J"

EQUATIONS AND CHI² VALUES1. CHI² Values

The CHI² values used to determine whether the error rates of each strata were worse than those predicted by the 80, 70, and 60 percent accuracy levels were determined using the following equation taken from Moon and Hall (1986),

$$\text{CHI}^2 = (X - np)^2 / np (1 - p)$$

where X = the observed number of errors

p = the expected proportion in the strata

n = the number of observations

The calculated CHI² value was then compared to the CHI² value obtained from the Table of CHI² values for determining Statistical significance (from Moon and Hall, 1986)

Table of Chi-square values for determining statistical significance.

Degrees of Freedom DF	Level of Significance									
	.99	.95	.90	.80	.70	.60	.50	.40	.30	.20
1	.000157	.000328	.000983	.0158	.0540	1.386	3.841	5.024	6.635	8.328
2	.0201	.0505	.1038	.2009	.3385	1.386	3.841	5.024	6.635	8.328
3	.115	.215	.352	.675	1.004	1.386	3.841	5.024	6.635	8.328
4	.287	.429	.711	1.064	1.386	1.386	3.841	5.024	6.635	8.328
5	.554	.752	1.148	1.610	2.357	3.357	4.779	6.064	7.879	9.488
6	.872	1.134	1.635	2.204	3.040	4.108	5.591	7.052	8.581	10.243
7	1.239	1.564	2.167	2.833	3.640	4.602	6.168	7.675	9.348	11.030
8	1.646	2.032	2.733	3.490	4.168	5.152	6.750	8.328	10.028	11.801
9	2.088	2.532	3.325	4.168	4.753	5.791	7.337	8.933	10.645	12.567
10	2.558	3.089	3.940	4.865	5.412	6.393	7.979	9.591	11.316	13.328
11	3.053	3.609	4.578	5.578	6.141	7.142	8.701	10.321	12.017	14.017
12	3.571	4.178	5.236	6.304	7.042	8.115	9.778	11.345	12.979	14.903
13	4.107	4.765	5.892	7.042	7.942	9.000	10.683	12.401	13.801	15.678
14	4.660	5.268	6.571	7.760	8.739	9.778	11.566	13.277	14.666	16.449
15	5.229	5.888	7.261	8.547	9.591	10.591	12.443	14.141	15.578	17.205
16	5.812	6.514	7.963	9.319	10.330	11.345	13.277	15.017	16.449	17.959
17	6.408	7.153	8.678	10.085	11.085	12.138	14.141	15.891	17.328	18.701
18	7.019	7.808	9.409	10.865	11.865	12.979	15.017	16.766	18.179	19.433
19	7.633	8.467	10.117	11.651	12.651	13.778	15.891	17.641	19.049	20.166
20	8.260	9.137	10.831	12.443	13.443	14.591	16.766	18.517	19.921	20.891
21	8.907	9.815	11.561	13.240	14.240	15.391	17.641	19.391	20.791	21.617
22	9.542	10.500	12.308	14.041	15.041	16.191	18.517	20.266	21.666	22.343
23	10.196	11.203	13.001	14.848	15.848	17.000	19.391	21.141	22.541	23.068
24	10.858	11.923	13.721	15.659	16.659	17.801	20.266	22.017	23.417	23.791
25	11.534	12.667	14.471	16.473	17.473	18.601	21.141	22.891	24.291	24.517
26	12.224	13.430	15.239	17.292	18.292	19.401	22.017	23.766	25.166	25.243
27	12.929	14.213	16.031	18.114	19.114	20.201	22.891	24.641	26.041	25.968
28	13.648	15.017	16.848	18.948	19.948	21.001	23.766	25.517	26.917	26.691
29	14.381	15.844	17.688	19.791	20.791	21.801	24.641	26.391	27.791	27.417
30	15.128	16.696	18.559	20.643	21.643	22.601	25.517	27.266	28.666	28.143

Using the table value obtained at the 0.05 significance level and one degree of freedom (3.841) a significant difference was determined if the calculated CHI² value was greater than the Table value.

2. The CHI² 2 X 2 Contingency Table Values

The CHI² 2 X 2 Contingency Table was used to detect difference between the true error rates of the strata and accuracy classes. These values were obtained using the following method from Moon and Hall (1986).

STRATA			
	A	B	
Right	n_a	n_c	$n_1 = n_a + n_c$
Wrong	n_b	n_d	$n_2 = n_b + n_d$
$CHI^2 = ([n_a n_d - n_b n_c] - n/2)^2 n$			

The calculated value of CHI² was compared to the value obtained from the CHI² Table of Values at the 0,05 significance level with one degree of freedom. When the Table Value of 3,841 was exceeded, by the calculated value, the true error rates of the strata or class being compared are significantly different.

APPENDIX "K"



ANALYSIS, NOBZTS, FIELD AND OLI ATTRIBUTE DATA, SELECTED NOBZTS POLYGOONS

NOBZTS

Polygon No.	Attribute	Prime Land Class/Subclass			Field Sample Sites			Ontario Land Inventory							
		Prime Land Class/Subclass			Prime Land Class/Subclass			Prime Land Class/Subclass							
		1	2	3	No.	No.	No.	No.	No.	No.					
		o r	v s	a s	f m	i p	d c	f	A g r e e	D i s a g r e e	o r	v s	a s	f m	i p

Mabligoon L.																		
ME, MH	81 egyle	1	4	2	2	4	4	2	2	4	4	2	20	80	84 - 1			
	162 egyle	1	3	3	3	1	3	3	1	3	3	3	100	81 - 1				
	287 egyle (gco)	1	5	1	1	5	5	1	1	5	5	1	15	20	71 - 1			
GE, GR	139 gcr	1	2	6	3	3	3	5	10	5	15	5	20	45	80 - d1			
OD, OD	80 egLB	1	6	0	0	6	0	6	10	5	15	5	15	84 - 1				
LA, LD	101 sOD (cslp)	1	2	4	4	2	2	4	2	2	4	2	15	60	83 - 1			
OT	37 POT	1	5	0	5	0	5	0	5	0	5	0	10	20	65	90 - 1		
	188 POT	1	2	4	2	3	1	4	2	2	2	2	15	5	64 - 2			
MG	110 tMG (NH) (cslp)	1	3	3	1	2	2	4	2	2	2	4	25	20	80 - p1			
	313 tMG (NH) (egco)	1	5	1	1	4	5	1	1	4	5	1	50	15	30	5	74 - 1	
LP	19 cslp (NH)	1	2	4	1	2	2	4	2	2	2	4	20	15	5	20	40	80 - 2
	98 cslp (NH) (pOT)	1	5	1	2	3	3	3	3	3	3	3	5	10	25	60	50 - 1	
	141 cslp (NH)	1	1	9	1	2	4	1	0	10	5	5	90	41 - 1				
RI, RR	312 RI (tMG)	1	5	1	1	5	1	1	1	5	5	1	30	15	63	1		
X/R	126 egLB/RI (NH) (cslp)	1	1	5	1	2	2	1	1	2	1	5	40	5	30	80 - 1		
RL, RP	253 RP (cslp)	1	3	5	1	1	3	4	2	10	15	35	30	10	64	- d2		
Total		1	54	47			52	49										
Pabwesh																		
ME, MH	276 egyle	1	0	5	1	1	1	0	5	1	0	5	100	47 - 81				
	670 egyle	1	5	0	1	5	5	0	0	5	0	0	80	20	28	- 83		
	855 egyle	1	4	2	1	4	4	2	2	4	2	2	100	47 - 81				
GE, GR	154 egco, OD	1	3	2	1	3	1	3	2	2	2	2	95	30	41			
	261 gcr	1	0	2	1	2	0	0	2	2	0	2	5	95	64	- 81		
OD, OD	445 egco/MG	1	4	1	1	4	1	5	0	4	1	5	55	5	344	- 33		
LA, LD	294 egco	1	2	2	3	2	1	3	1	2	1	3	50	25	48	- 34		
OT	78 POT	1	3	0	3	0	3	0	3	0	3	0	15	5	50	2d - 40		
	795 tMG	1	3	2	1	3	1	4	1	3	1	4	35	65	71	- 50		
MG	800/801 tMG	1	0	5	1	1	4	1	5	20	5	20	75	72d - 39				
RI, RR	874 RI (tMG, POT/RI)	1	1	6	1	1	4	1	1	6	1	1	15	50	42d - 40			
X/R	841 cslp/R	1	0	3	1	2	3	0	0	2	3	0	35	65	71	- 50		
	358 cslp/R	1	0	5	1	5	5	0	0	5	0	0	40	25	49	- 74		
RL, RP	301 RP (tMG)	1	2	4	1	2	4	2	2	2	4	2	10	10	30	24	- 34	
	224 RP (tMG/RI)	1	0	9	2	5	1	8	1	1	8	1	5	5	65	74	- 50	
	637 RP (tMG/RI)	1	0	6	1	1	4	5	1	1	4	5	25	55	70d - 40			
	827 RP (tMG, POT)	1	7	4	1	1	6	2	8	68	24	15						
Total		1	34	58			68	24										

REPORTS

NORZTS		Prime Land Class/Subclass			Field Sample Sites			Ontario Land Inventory			Prime Land Class/Subclass			Land Unit																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Polygon No.	Attribute	3	1	No.	3	1	No.	3	1	No.	3	1	No.	3	1	No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o	r	v	s	a	s	o

ANALYSIS, MOBERTS, FIELD AND OLI ATTRIBUTES DATA, SELECTED MOBERTS POLYONS

Polygon No.	Attribute	Prime Land Class/Subclass			Field Sample Sites			Ontario Land Inventory			Prime Land Class/Subclass			Land Unit		
		3 2 1			3 2 1			3 2 1			3 2 1			1 d c f		
		o r v s a s a f a m i p d c f Agree Disagree			o r v s a s a f a m i p d c f Agree Disagree			o r v s a s a f a m i p d c f Agree Disagree			o r v s a s a f a m i p d c f Agree Disagree			1 d c f		
Heaven L.																
ME, MH	199 t&H (sp&K)	1	1	0	5	2	1	2	1	0	5	5	5	5	15	30
	90 t&H (t&H)	1	1	0	5	1	1	2	1	1	4	4	4	5	15	15
GE, GK	225 sp&K-GK (s&K)	1	1	1	3	1	1	1	1	2	2	2	2	5	15	30
	97 sp&K	1	1	2	3	1	1	2	2	3	3	3	3	5	15	30
GD, GD	124 sp&K	1	1	1	4	1	1	2	2	2	3	3	3	5	15	35
	42 sp&K (TS&K)	1	1	2	3	1	1	2	2	2	3	3	3	5	10	85
OT	105 POT	1	1	4	1	4	1	4	1	4	1	30	15	5	15	30
MG	278 t&H	1	1	3	2	1	1	3	3	4	1	5	40	5	15	35
	246 t&H (s&K)	1	1	4	1	1	1	4	4	1	20	15	15	5	25	10
	346 t&H (t&H/R)	1	1	1	4	1	1	2	2	3	3	5	10	70	30	15
LP	61 s&K (t&H/R)	1	1	2	3	1	1	2	2	5	0	20	20	5	10	5
	70 s&K	1	1	2	3	1	1	2	2	3	2	5	5	45	15	30
RM, RM	292 RR (t&H/R)	1	1	2	3	1	1	1	1	4	1	5	5	45	15	30
	227 RR (t&H/R)	1	1	2	3	1	1	1	1	4	2	2	20	5	10	5
X/R	330 t&H/R (POT/s&K)	1	1	1	5	1	1	1	1	4	2	2	5	5	15	30
	96 t&H/R	1	1	0	5	1	1	1	2	3	2	20	20	5	10	5
Total				27	53					44	36					
Realym L.																
GE, GK	190 sp&K, sp&K	1	1	2	0		2	2	2	2	0	10	5	10	75	85d - 43
	110 sp&K, sp&K (RM)	1	1	2	1		1	2	2	2	1	10	5	10	75	85d - 43
	111 sp&K, sp&K, sp&K (RM)	1	1	5	0		5	5	5	5	0	10	5	10	75	85d - 43
	74 sp&K, sp&K/R (RM)	1	1	1	4	2	1	1	1	5	3	10	5	10	75	85d - 43
GD, GD	311 sp&K	1	1	3	2		3	3	3	5	0	15	35	20	25	5
LA, LD	323 sp&K/t&H	1	1	1	4	2		1	1	5	0	5	20	30	25	10
	273 sp&K (RM)	1	1	1	0	1	1	1	1	5	0	30	10	20	10	15
OT	162 POT	1	1	5	0	5		5	5	6	0	15	5	10	15	25
	177 POT/s&K (RM)	1	1	0	5	2	2	2	2	4	1	5	20	30	25	10
MG	324 t&H (RM, POT)	1	1	10	3	7	3	10	10	5	0	15	10	25	10	5
RM, RM	320 RM (t&H/R)	1	1	4	0	2	2	2	2	5	0	15	10	25	10	5
	168 RM (t&H/R)	1	1	2	3	1	2	1	1	4	1	15	5	10	15	25
X/R	210 RM (t&H, POT/R)	1	1	2	3	1	2	1	1	5	0	15	5	10	15	25
	119 t&H/R (RM, POT)	1	1	3	5	1	2	1	1	4	1	5	20	30	25	10
	57 sp&K/R (RM)	1	1	0	5	2	2	2	2	5	0	15	5	10	15	25
	59 sp&K/R (RM)	1	1	0	5	1	1	1	1	4	1	15	10	25	10	5
Total				45	36					67	14					

APPENDIX "M"

APPENDIX "M"

USER: P079900287

-at

<USER1>P079900287>PAKWASH>TAPESAV.COM


```

WWW  WWW  WWWWWW  WWW  WWW  WWW  WWW  WWW  WWW  WWW
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
WWW  W  W  W  W  WWW  WWW  W  W  W  W  W  W  WWW  W
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  WWW  W  WWW  WWW  WWW  WWW  WWW  WWWWWW  WWW  W

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WWW  WWW  WWW  WWWWWW  WWW  WWW  W  W  WWW  WWW  W  W  WWW
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  WWW  WWW  WWW  WWW  WWW  WWW  W  W  W  W  W  W  W
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W  W
W  W  W  W  WWW  WWW  W  W  W  W  WWW  WWW  WWW  W  W  WWW

```


[Spooler rev 20.0.1 (c) Prime Computer, Inc., 1985]

Label: PRT061 -form

Pathname: <USER1>P079900287>PAKWASH>TAPESAV.COM

File last modified: 88-03-10.09:25:36. Thu

Spooled: 88-03-10.08:33:48. Thu

Started: 88-03-10.08:33:56. Thu on: AMLC by: PRO

OK, AS MTO

OK, AS MTO

Device MTO assigned.

OK, TAPESAV

Enter record length in bytes => : 80

Enter blocksize in bytes => : 8000

Enter name of file to be written to tape => : SOIL.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(SOIL.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 31736 Logical records read.

Object name = SYSOUT : 318 Physical blocks written.

Object name = SYSOUT : 31736 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : HYD.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(HYD.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 10193 Logical records read.

Object name = SYSOUT : 102 Physical blocks written.

Object name = SYSOUT : 10193 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : NEAT.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(NEAT.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 28 Logical records read.

Object name = SYSOUT : 1 Physical blocks written.

Object name = SYSOUT : 28 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : N

OK, SPOOL TAPESAV.CONO

User: P079900297

-at

<USER10P079900297>WABIGOODN>TAPESAV.COMD

WWWW WWW WWWWWW WWW WWW WWW WWW WWW WWWWWW
W W W W W W W W W W W W W W W W
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WWWWW WWW WWWWWW WWW WWW W W WWW WWW W W WWW
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W W W W WWWWWW WWW W W W WWW WWW W W WWW

[Spooler vcv 2.0.1 (c) Prime Computer, Inc., 1985]

Label: PR1000 -form

Pathname: <USER10P079900297>WABIGOODN>TAPESAV.COMD

File last modified: 88-03-10.09:57:20.Thu

Spooled: 88-03-10.10:06:36.Thu

Started: 88-03-10.10:06:36.Thu on: AMLC by: PRO

OK, AS MTD

OK, AS MTD

Device MTD assigned.

OK, TAPESAV

Enter record length in bytes => : 80

Enter blocksize in bytes => : 8000

Enter name of file to be written to tape => : SOIL.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(SOIL.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 24939 Logical records read.

Object name = SYSOUT : 250 Physical blocks written.

Object name = SYSOUT : 24939 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : HYD.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(HYD.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 15899 Logical records read.

Object name = SYSOUT : 159 Physical blocks written.

Object name = SYSOUT : 15899 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : NEAT.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(NEAT.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 21 Logical records read.

Object name = SYSOUT : 1 Physical blocks written.

Object name = SYSOUT : 21 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : N

OK, SPOOL TAPESAV.COMO

User: P079900287

-at

5

<USER1>P079900287>SEINE>TAPESAV.COMD

WWWW WWW WWWWW WWW WWW WWW WWW WWW WWWWW
W W W W W W W W W W W W W W W W W
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W W W W WWWWW WWW W W W WW WWW WWW W W WWW

[Spooler rev 20.0.1 (c) Prime Computer, Inc., 1985]

Label: PRT080 -form

Pathname: <USER1>P079900287>SEINE>TAPESAV.COMD

File last modified: 88-03-18.10:33:40.Fri

Spooled: 88-03-18.10:48:24.Fri

Started: 88-03-18.10:48:28.Fri on: AMLC by: PRO

OK, AS MTO
Device MTO assigned.
OK, TAPESAV

Enter record length in bytes => : 80
Enter blocksize in bytes => : 8000
Enter name of file to be written to tape => : SOIL.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(SOIL.E00),LRECL=(80)
> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)
> WRITE SYSIN SYSOUT
Object name = SYSIN : Operation complete.
Object name = SYSIN : 26002 Logical records read.
Object name = SYSOUT : 261 Physical blocks written.
Object name = SYSOUT : 26002 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y
Enter name of file to be written to tape => : HYD.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(HYD.E00),LRECL=(80)
> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)
> WRITE SYSIN SYSOUT
Object name = SYSIN : Operation complete.
Object name = SYSIN : 18743 Logical records read.
Object name = SYSOUT : 188 Physical blocks written.
Object name = SYSOUT : 18743 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y
Enter name of file to be written to tape => : NEAT.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(NEAT.E00),LRECL=(80)
> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)
> WRITE SYSIN SYSOUT
Object name = SYSIN : Operation complete.
Object name = SYSIN : 28 Logical records read.
Object name = SYSOUT : 1 Physical blocks written.
Object name = SYSOUT : 28 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : N
OK, SPOOL TAPESAV.COMO

User: P079900287

-at

USERID=P079900287:MARMION:TAPESAV.COMD

WWW WWW WWW WWW WWW WWW WWW WWW WWW
W W W W W W W W W W W W W W W
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W W W W W W W W W W W W W W W
W W W W WWW WWW W W W W WWW WWW W W WWW

[Epsilon v. 20.0.1 (c) Prime Computer, Inc., 1985]

Label PRION3 -form

Pathname: USERID=P079900287:MARMION:TAPESAV.COMD
File last modified: 88-03-10.08:53:04.Thu

Spooled: 88-03-10.09:07:36.Thu

Started: 88-03-10.09:07:40.Thu on AMLC by: PRO

OK, AS MTD

OK, AS MTD

Device MTD assigned.

OK, TAPESAV

Enter record length in bytes => : 80

Enter blocksize in bytes => : 8000

Enter name of file to be written to tape => : SOIL.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(SOIL.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 41347 Logical records read.

Object name = SYSOUT : 414 Physical blocks written.

Object name = SYSOUT : 41347 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : HYD.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(HYD.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 31411 Logical records read.

Object name = SYSOUT : 315 Physical blocks written.

Object name = SYSOUT : 31411 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : NEAT.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(NEAT.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 23 Logical records read.

Object name = SYSOUT : 1 Physical blocks written.

Object name = SYSOUT : 23 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : N

OK, SPOOL TAPESAV.COMO

USET: P079900287

-at

<USER10:P079900287>HEAVEN>TAPESAV.COMD

WWW WWW WWW WWW WWW WWW WWW WWW WWW
W W W W W W W W W W W W W W W
W W W W W W W W W W W W W W
WWW W W W W WWW WWW W W W W W
W W W W W W W W W W W W W
W W W W W W W W W W W W W
W WWW W WWW WWW WWW WWW WWW W

WWW WWW WWW WWW WWW W W WWW WWW W W WWW
W W W W W W W W W W W W W W W
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W W W W W W W W W W W W W W W
W W W W W W W W W W W W W W W
W W W W WWW WWW W W W WWW WWW W W WWW

[Spooler: 001 (c) Prime Computer, Inc., 1985]

Label: P079900287-form

Pathname: <USER10:P079900287>HEAVEN>TAPESAV.COMD

File last modified: 88-03-10. 09:21:24. Thu

Spooler: 88-03-10. 09:27:32. Thu

Started: 88-03-10. 09:27:36. Thu on: AMLC by: PRO

OK, AS RTU

OK, AS RTU

Device RTU assigned.

OK, TAPESAV

Enter record length in bytes => : 80

Enter blocksize in bytes => : 8000

Enter name of file to be written to tape => : SOIL.E00

[MAGNET Rev. 20.1 2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(SOIL.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 24020 Logical records read.

Object name = SYSOUT : 241 Physical blocks written.

Object name = SYSOUT : 24020 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : HYD.E00

[MAGNET Rev. 20.1 2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(HYD.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 12843 Logical records read.

Object name = SYSOUT : 129 Physical blocks written.

Object name = SYSOUT : 12843 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : NEAT.E00

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> DECLARE SYSIN DISK=(NEAT.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 28 Logical records read.

Object name = SYSOUT : 1 Physical blocks written.

Object name = SYSOUT : 28 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : N

OK, SPICE TAPESAV.COMO

User: P079900287

-at

<USER1>P079900287>ROSLYN>TAPESAV.COMD!

WWW WWW WWW WWW WWW WWW WWW WWW WWW
W W W W W W W W W W W W W W W W
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[Spooler rev 20.0.1 (c) Prime Computer, Inc., 1985]

Label: PRT062 -form

Pathname: <USER1>P079900287>ROSLYN>TAPESAV.COMD

File last modified: 88-03-10.10:56:56.Thu

Spooled: 88-03-10.11:05:00.Thu

Started: 88-03-10.11:05:04.Thu on: AMLC by: PRO

OK, AS MTO

OK, AS MTO

Device MTO assigned.

OK, TAPESAV

Enter record length in bytes => : 80

Enter blocksize in bytes => : 8000

Enter name of file to be written to tape => : SOIL.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(SOIL.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 25559 Logical records read.

Object name = SYSOUT : 256 Physical blocks written.

Object name = SYSOUT : 25559 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : HYD.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(HYD.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 14066 Logical records read.

Object name = SYSOUT : 141 Physical blocks written.

Object name = SYSOUT : 14066 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : Y

Enter name of file to be written to tape => : NEAT.E00

[MAGNET Rev. 20.1.2 Copyright (c) 1985 Prime Computer, Inc.]

> DECLARE SYSIN DISK=(NEAT.E00),LRECL=(80)

> DECLARE SYSOUT TAPE=(0),BFACTOR=(100),LRECL=(80),BUFFERS=(1),DENSITY=(1600)

> WRITE SYSIN SYSOUT

Object name = SYSIN : Operation complete.

Object name = SYSIN : 27 Logical records read.

Object name = SYSOUT : 1 Physical blocks written.

Object name = SYSOUT : 27 Logical records written.

> Q

Do you wish to write another file to tape (Y/N) => : N

OK, SPOOL TAPESAV.COMO